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THE BIOLOGY OF THE SPIRIT

By Edmund W. Sinnott

TOMORROW

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IS PSYCHIC RESEARCH A SCIENCE?

By Gardner Murphy

REINCARNATION: EAST-WEST VIEWS

By Ian Stevenson

REVOLT IN SPIRITLAND

By Hans Holzer

ALSO IN THIS ISSUE: THE AMAZING DR. DEE by Julian Franklyn; PSYCHIC RESEARCH IN HIGH SCHOOL by John D. Engle, Jr.; RICHARD HODGSON: PIONEER INVESTIGATOR by Gertrude O. Tubby; WINDOWS TO THE PAST by Andrew Ballantine; Book Reviews by Allan Angoff, Martin Ebon, Eileen J. Garrett, Sherman Yellen.

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VOL. 9, NO. 1, WINTER 1961

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Editorial:

TWO DECADES LATER

IT WAS IN the year 1941 that the first issue of TOMORROW reached its readers. It was then a monthly magazine devoted to literature, public affairs and science; it gave considerable editorial attention to the younger poets. But even in the magazine's first issue, Volume I, No. 1, there could be found an article by Gerald Heard, dealing with "Mediumship and Mysticism" and another by William Mourton Marston, "Use Your ESP Every Day."

In the years that followed, TOMORROW was host to many distinguished writers; among them were Louis Adamic, Sir Norman Angell, Claude Bragdon, Louis Bromfield, Stuart Cloete, Mary Colum, Salvador de Madariaga, Byron de Prorock, Olin Downes, Lord Dunsany, John Erskine, Dorothy Canfield Fisher, Oliver St. John Gogarty, Louis Golden, Ruth Harkness, James Hilton, John Latouche, Jan Masaryk, Klaus Mann, Thomas Mann, André Maurois, James Reynolds, Vincent Sheean, Igor Stravinsky, Thomas Sugrue, Dorothy Thompson, Hendrik van Loon, H. G. Wells, Sir Hubert Wilkins, and many others of achievement and prominence.

There has been a good deal of continuity: one of TOMORROW's first editors, Allan Angoff, conducts its regular "Books in Review" section to this day; others, including Richard S. Lambert and Stanton A. Coblentz, have continued to write for us throughout the past two decades. We mourn the passing of such good friends and contributors as Waldemar Kaempffert, who as science editor of *The New York Times* retained his lively interest in psychic phenomena; of R. DeWitt Miller, who did much to publicize parapsychological events in his books and magazine articles; of Harry Price, the colorful and embattled British writer to whom the psychic had been a subject of journalistic passion; and, last but not least, the delightful naturalist Alan

(*Continued on inside back cover*)

TOMORROW

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SHERMAN YELLEN is a member of the editorial staff of TOMORROW.

DOES MAN SURVIVE DEATH?

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Where something appears to "transcend the ordinary knowledge," it may very well be necessary to find "genuinely new principles"

IS PSYCHIC RESEARCH A SCIENCE?

Gardner Murphy

Among contemporary psychical researchers, Gardner Murphy occupies a unique position. He is a distinguished psychologist; he is also an experienced and dedicated parapsychologist. At the present time, Dr. Murphy is Director of Research of the Menninger Foundation, Topeka, Kansas; General Research Consultant of the Parapsychology Foundation; and Vice President and Chairman of the Research Committee, American Society for Psychical Research. In 1949 and 1950, he was President of the Society for Psychical Research, London.

Gardner Murphy served as a consultant for the United Nations Educational and Scientific Organization (UNESCO) with the Industry Ministry of Education in 1950. He was President of the American Psychological Association in 1943 and 1944. The following pages, taken from his most recent work, The Challenge

of Psychical Research, *represent Dr. Murphy's latest thoughts on the accomplishments and opportunities presented by parapsychological studies to date; a review of this book may be found on page 80. Another work, published by Dr. Murphy's associates and students, entitled* Festschrift for Gardner Murphy, *is reviewed on page 72. In recent months, Dr. Murphy has acted as co-author or co-editor of two volumes*: William James and Psychical Research *(1960) and* Development and the Perceptual World *(1960). Among Dr. Murphy's best-known works are* Introduction to Psychology *(1951) and* Human Potentialities *(1958).*

* * *

WHAT MAY a serious, modern thinker believe about the evidences that are offered in the field of psychical research?

What is credible; what is knowable; what, if anything, can be concluded?

Some tentative answers to these questions are given on the following pages. They have been of personal concern to me, ever since, in the library of my mother's father, George A. King, I read at the age of sixteen, Sir William Barrett's little book *Psychical Research.* "Grandpa King," as well as my father and mother, all felt strongly that there was "something in" psychical research; indeed, they had a fair reading knowledge of the new field of inquiry. I started with a bias for, rather than against. The opportunity to work with L. T. Troland at Harvard a few years later, and the help given me by leaders of the Society for Psychical Research in London, especially Miss Isabel Newton, in 1919, and by Professor J. H. Hyslop at the American Society for Psychical Research, got me started; and I read intensively and extensively in the field all during my first years as a psychologist. The Richard Hodgson Fellowship at Harvard gave me a stipend with which I tried to study telepathy, and with which I had some sittings with Mrs. L. E. Piper.

After a long illness in which I could not be active in the field, I began again in 1934, the year in which J. B. Rhine's *Extrasensory Perception* appeared. I got a great deal of help and inspiration from visiting Dr. Rhine at the Parapsychology Laboratory at Duke Univer-

sity and meeting many of his associates. In 1941 a "palace revolution" at the American Society for Psychical Research gave me the opportunity to share with research-minded people, especially with Mrs. Laura A. Dale.

In a period of contact with the Richard Hodgson Fellowship Committee at Harvard, I had met several who felt it would be a good idea for me to teach a summer session course in psychical research there in 1942. Among the group who took the course, Dr. Gertrude R. Schmeidler became excited about experimental research and embarked upon a research career in the field to which one will find references in the present volume. Two other collaborators who guided me in the evolution of research concepts must be mentioned: Dr. Ernest Taves and Dr. Joseph L. Woodruff. With the latter I am still in constant and grateful contact. These are among my chief living sources of inspiration. Among those passed on I must emphasize the extraordinary pioneer leaders of the Society for Psychical Research in London, the reading of whose works is absolutely fundamental for serious knowledge of psychical research, especially Frederic W. H. Myers and Eleanor Mildred Sidgwick. All this gives some idea of the furniture of my mind as I face the task of trying to write something about psychical research.

PSYCHIC PHENOMENA belong to a class of events not ready for inclusion in systematic science, mainly because the events do not easily fall into the time-space-motion-energy system with which physical science has acquainted us. Science is selective: to use what "fits in," see the data, including those given in this book, reflect the method of investigation used.

Not only are the present data difficult to accept, but when the problems of authentication are met, there are problems of conscious and unconscious self-deception on the part of those who experience or witness the phenomena and on the part of the investigators that study them, and perhaps still more on the part of those who read what they have not themselves encountered. Then comes a formidable scientific block, if we accept some of them as "facts": the difficulty of obtaining information as to the precise conditions—physiological, psychological, sociocultural—in which these events occur.

Finally, hand in hand with this last point, comes the difficulty of duplicating the conditions so that a repeatable experiment can be devised, or conditions specified in which fresh spontaneous phenomena are likely to occur. What we have in the meantime are large masses of more or less authenticated materials, of which a few fragments have here been presented, and a rather considerable body of psychological and philosophical speculations as to the conditions, the dynamics, the explanatory principles which will bind these phenomena together.

Psi phenomena are often expressions of unconscious or deep-level dynamic principles reflecting the relation of the person to his physical environment or more commonly to his personal-social environment. When two or more persons are involved, the assumption is that there is deep-level interaction between them. Secondly, hand in hand with this principle goes the assumption that the phenomena are expressions of need, impulse, drive, or purpose; that in harmony with the modern trend to see stress-reduction or goal-seeking as expressions of all life, psi phenomena may well be regarded as directed expressions of conscious or unconscious needs. From this point of view, the act of clairvoyance makes a contact to round out the cognitive grasp of a situation, while a telepathic process may convey and receive information, thus linking two minds together, or might represent empathy, a *feeling with,* a groping toward other individuals psychologically close to the receiver.

Hand in hand with these two principles—the assumption of unconscious dynamics and the assumption of need fulfillment or purpose —comes the assumption of some kind of fundamental dualism, some basic difference, between normal and paranormal processes. One way of stating the situation is that paranormal processes do not represent a part of the time-space-event system which the physical sciences describe. As we have suggested above, there is a certain timeless, spaceless, or we might say transtemporal and transpatial character at the very heart of the paranormal. This is indeed one of the major reasons why the phenomena do not belong to and are rejected by official science. It is at the same time a distinguishing criterion which marks off situations with which a psychology allied to physics can deal and those calling for a somewhat different kind of psychology.

From the foregoing it follows that there is a state of mutual exclusion, or even opposition, between the conditions under which ordinary contact with the environment is made and those in which the rules are suspended and the paranormal supervenes. We must choose our words carefully. Let us say that the evidence tends to suggest that the normal and the paranormal are as a rule found under somewhat different conditions; the paranormal does not appear if the normal is doing its work well. There seem nevertheless to be special cases in which the normal and the paranormal may be blended.

Now if all this is so, it would appear to follow that ideal conditions for the study of the paranormal would involve a certain blunting or limitation of the possibility of normal function. We have studies of semisleeping and sleeping conditions, which together with half-wakeful conditions, drowsiness and hypnosis, as well as various drug states and deliria and toxic states, all seem to offer more than their share of paranormal output. It would appear then to be literally true that the paranormal emerges "when the coast is clear" and the "impediments" to its appearance are removed. One of the paradoxes confronting the experimental parapsychologist is evident: he must use all the psychology he knows with reference to getting motivation and a favorable attitude toward the task and the experimenter. He must structure his task so that it can be paranormally perceived and the results evaluated; he must be alert for incline effects, decline effects, grouping of hits, and other expressions of normal perceptual activity. And at the same time he must keep in mind constantly that he is dealing with a process which probably would not be there at all if conditions were favorable for normal perception, exemplifying the normal range of psychological laws relevant to its occurrence. Parapsychologists must, as it were, create all the conditions under which cognition in general (or perception in particular) would be expected to occur, but then blunt, inhibit, or block the special conditions which favor normal perception! He must use opaque envelopes, screens or long-distance conditions, so that when once he has aroused the urge to perceive he can prevent all perception of a normal sort from occurring. It is in fact this very paradox which has made the clear formulation of a model for repeatable experiments so difficult to achieve.

What has been implied here about paranormal cognition (including experimental telepathy, clairvoyance, and precognition) applies almost in full force likewise to PK, and indeed in all likelihood to every type of parnormal process. We are dealing, if not with a basic dualism in human nature between a normal and a paranormal process, at least with a practical functional dualism in the sense that we must strenuously exclude every possibility of normal physical action upon external objects or events if we are to include our observed phenomena as PK. At the same time we must make the most of all the psychology we know to get the mood, attitude, and "stance" of the subject favorable for the production of movement. It is as if we said to him, "Take all the conditions that will make the production of movement impossible and then produce the movement."

There remains, however, an escape: the possibility that there may be conditions under which some kinds of normal perception and action may actually potentiate or predispose toward paranormal perception or action. The faint sights and sounds may offer a matrix upon which paranormal information is grafted.

In most ESP experiments we wish to make absolutely certain that sensory cues are eliminated; and while in ordinary precognition experiments they are by definition eliminated, it may be that for certain purposes we are throwing babies out with their baths. It may be more appropriate to study the exact conditions under which normal and paranormal occur in juxtaposition or in *coalescence or reinforcement,* one of another. We may, for example, use sensory material which can be perceived under ordinary conditions, but which will be perceived in different ways depending upon a paranormal factor operating at the moment.

If we turn now to the question as to the most favorable *states* in which to manifest such phenomena, we shall have to re-emphasize the importance of need, structure of task, and removal of impediments to paranormal function. But something must be added about a fundamental capacity to function outside of the ordinary time-space categories; an ability to accept, if you like, the reality of telepathy, clairvoyance, precognition, psychokinesis, and to go ahead and function in these ways regardless of plausibility or antecedent expectation. To be-

lieve that one can and will function in this way, to be free from barriers, and to take the plunge, these are the primary suggestions that can be given. They do not work infallibly, but they seem in the long run to be clues worth pursuing and worthy of better experimental documentation that they have as yet received.

IF WE TURN now to the attributes of *individuals,* the fundamental personality dispositions which seem to favor the exercise of psi capacities, we can certainly note an apparent hereditary factor in the sense that there are many good instances of apparent telepathetic interchange between relatives, including those cases in which an accident to one could in no way normally be foreseen by the other, and likewise a considerable number of cases in which a broad psi predisposition seems to run in families. There are also some cases in which twins seem paranormally responsive to one another. It may be that the biological relationship involves having similar needs or similar modes of cognitive organization, or similar barriers, or similar ways of removing barriers, or finally similar ways of transcending the time-space relationships. All of these possibilities remain unexplored.

Turning now to more immediately obvious attributes which may predispose toward psi success, there are the physical attributes, such as special physiological conditions, as long noted in the literature in connection with paranormal exchanges during fever states and delirium, and the very curious data of Schmeidler (Gertrude R. Schmeidler, Rorschachs and ESP scores of patients suffering from cerebral concussion, *Journal of Parapsychology,* 1952, Vol. 16, 80-89; also in Schmeidler and McConnell, *op. cit.* 75-84.) indicating high success during the passive states following concussion, as compared with a control population in the hospital which was not similarly passive, and likewise the extraordinary passivity and sense of fulfillment of the mother recovering from parturition was found to be a favorable state. It may be that it is here in fact that the absence of impediments, the absence of a nervous preoccupied effort to make sensory contact with the environment is most effectively removed. Finally, there is the assumption that a state of profound dissociation or splitting of the mind —capacity to carry out one activity with the hand and think about

something utterly different, or capacity to pass into a "brown study" or "absent" state while still carrying on normal interchange with the environment—may be a favorable state, so that people with such tendencies may be used as clairvoyants, tea readers, mediums, priests. Even in a society which ridicules the whole business, such individuals may cultivate for their own interest and that of their friends those moments in which paranormal impressions seem to come.

We have then a few suggestions about favorable states and favorable personalities, but no one has undertaken experimentally to develop the favorable personality and the favorable state; no one, unless one takes into account the bold persons with the courage of their convictions who have undertaken to "train" mediums for regular work as spiritualist instruments for communication between the deceased and the living. Such training, whatever it involves, certainly involves a focusing of need, a strengthening of favorable attitude, and a capacity to remove barriers. Perhaps experimental psychologists, unwilling to commit themselves to spiritualist modes of thought, may still find something here which could be converted into an experimental program for the cultivation of states favorable to the psi process. Of very real promise here are methods for developing relaxation and freeing the mind from distractions; methods for increasing single-minded intent in the task of functioning paranormally, and in the specific persons and targets involved in the task; and methods in studying the process of *learning* to function paranormally.

Psychical research is not, and cannot be, a systematic world philosophy. It is a field of investigation. Indeed, Jesuits and atheists have both made signal contributions to psychical research as they have to various exact sciences. Psychical research cannot pretend to be a systematic view of the world, however much its protagonists may incline toward certain interpretations rather than others, regarding the meaning of the data observed.

Since psychical research aims not to become a cult, but a branch of science, many of the problems with which it deals overlap the problems of psychology, physiology, anthropology, medicine. It is often difficult to tell whether a problem is a relevant one for the psychical researcher, or whether these other groups are adequate to the task.

Only when we are sure that normal psychology and physiology have failed to cover the situation can the psychical researcher say that he certainly belongs in the picture, and that he has an important area of investigation which the other scholars are not fully qualified to handle within the accepted scope of their disciplines.

WE COME NOW to the subject of survival evidence. While anyone seriously interested in psychical research in the era of William James would have taken for granted the importance of the issues which emerge in the material just presented, it is probable that almost no modern reader will respond in this way. A few of the old-timers are still to be found, and a few of the younger readers have become interested in the survival issue, but the problems tend to seem less and less real to the generation trained in experimental and quantitative parapsychology, as exemplified by J. B. Rhine's Duke University Laboratory and the many related movements in psychical research today.

It will be noted, of course, that the era of the great mediums—roughly from 1880 to 1925—has passed, at least as far as Britain and the United States are concerned. Only one of the great old-time mediums is still living—Mrs. Osborne Leonard—and Mrs. Leonard has not, for many years, done the type of work for which she was long justly famous. One question is why the species of the great mediums has moved on, and why we have failed by search and training to replace them. Perhaps we have here a circular relationship: doubt inhibiting the development of mediumship and the failure of mediumship adding to doubt. Some will even take issue with my great interest in so much of the classical survival material. I do not, however, feel guilty about this any more than I would in emphasizing any other material which waxes and wanes with various cultural circumstances, especially in view of the likelihood that in many cases cycles may recommence themselves; and especially in view of the fact that what is really important, like the work of Galileo or Darwin, remains important. The music of Palestrina, or of Schubert, is important though no Palestrinas and Schuberts are to be found today. Ultimately it is perspective, not finalities, with regard to facts, that our book is aiming to create, and the era of great mediumship is part of the perspective.

What then, do I seriously offer the reader in this survival material? Do I expect the reader to take seriously, in the midst of modern skepticism and hostility to "outrageous hypotheses," first that a soul could exist independently of its material body, and secondly that this soul could communicate with the living? I suggest that these data were collected within the framework of these beliefs and that these beliefs have a prima-facie reason to be studied in their cultural context and offered as serious hypotheses with reference to such evidence as can be marshaled. I believe that a strong case has been offered for communication from the deceased, and that in this modern empirical era no theological or philosophical argument will any longer be taken seriously without the presentation and critical evaluation of empirical evidence.

If, on the other hand, I am asked whether I think the evidence is "convincing," I will reply in terms of two rather broad philosophical issues. First, as the biological evidence comes in, decade by decade, year by year, we cannot find any easy way to conceive of a soul, a spiritual entity independent of the living system known to biology, psychiatry, and psychology. Difficulties which were already serious three centuries ago as the physiology of the brain began to be understood, have become more and more serious, and the intimate unity of psychological and physiological processes known to us through anatomy, physiology, psychopathology, even biochemistry and histology, makes the conception of an independent soul recede more and more into the land of the utterly incredible and unimaginable. As a modern psychologist, I find myself forced, as most psychologists find themselves forced, into this Never-Never land in which theoretical objections are so enormous that no empirical material could stand up against them. Hand in hand with this comes the fact that there is, so far as I know, no survival evidence which is completely unambiguous, complete in itself, and free of all competing or alternative explanations. The theory offered by Mrs. Sidgwick, according to which secondary personalities are dissociated fragments of sensitives or mediums acting under the influence of suggestion, vividly impersonating the personalities of the deceased, can be maintained *if* one gives it a very great capacity to use telepathic information combined.

But is that the only honest way of looking at the survival hypothesis? No, in all candor, there are three types of evidence which still remain essentially as they have remained through all psychical research, and which, so far as I know, cannot be swept aside or essentially weakened. First, there is the patent fact in the case of many apparitions, in the case of some dreams, and in the case of a great many mediumistic performances, in which the *initiative,* the directing force, the plan, the purpose of the communication, seems pretty plainly to come from no living individual, however fragmentary, dissociated, or subconscious the vehicle appears to be. At the time of death, or some time after death, there seems to be a will to communicate. It appears to be autonomous, self-contained, completely and humanly purposive. It is at its best in the Myers type of collected case material, and it assumes formidable and unescapable directness in the "Ear of Dionysius" case, in which not one, but two highly organized purposive and directed activities expressing two individualities are combined. The intent is *didactic, clear, sure of itself, shows initiative.* It is true that these individualities do not act exactly like the individualities of incarnate persons; they forget, for example, what they have started, and need to be brought to the point at which they had gone off the track. But when they resume, they continue at the same extraordinary level, a level completely characteristic of themselves and characteristic of no living person. It is the autonomy, the purposiveness, the cogency, above all the individuality, of the source of the messages, that cannot be by-passed. Struggle though I may as a psychologist, for forty-five years, to try to find a "naturalistic" and "normal" way of handling this material, I cannot do this even when using all the information we have about human chicanery and the far-flung telepathic and clairvoyant abilities of some gifted sensitives. The case looks like communication with the deceased.

Where, then, do I stand? To this the reply is: what happens when an irresistible force strikes an immovable object? To me, the evidence cannot be by-passed, nor on the other hand can conviction be achieved. It is trivial and childish to ask whether I believe fifty-five—forty-five or forty-five—fifty-five. Trained as a psychologist, and now in my sixties, I do not actually anticipate finding myself in existence after physical death. If this is the answer that the reader wants, he can have it.

But if this means that in a serious philosophical argument I would plead the antisurvival case, the conclusion is erroneous. I linger because I cannot cross the stream. We need far more evidence; we need new perspective; perhaps we need more courageous minds.

FINALLY, a good many readers will wonder why so much "fuss" is made about the special challenges or wonders that are associated with that which goes beyond the existing disciplines. Is not the whole world full of wonders? Is not every physiological or psychological event largely inexplicable? Are there not miracles moment by moment? These are questions of definition. It is true that we understand very little, but we are beginning to systematize; indeed, the systematizations of the last 300 years since the time of Galileo have given us a rather good world view, and a rather good conception of the unity of the living system in which physiology and psychology are intimately fused. It is where something occurs that is *not* part of this intimate fusion—it is where something occurs that appears to *transcend* the ordinary known relations of the organism to time, space, matter, and energy—that we have a break-through into something which at present we must call unknown, tying it to the known as best it can, but ready always to emphasize the unknown and see whether *new principles*—utterly and genuinely new principles—may be necessary in order to give a rounded interpretation. Psychical research may turn out to harmonize and integrate with other new scientific and philosophic perspectives. It is more likely that it will be a "thorn in the flesh," necessitating some basic rethinking in basic new research, and playing a large role in the functional shift to a new way of looking at life and mind.

(From the book, *The Challenge of Psychical Research* © 1961 by Gardner Murphy with the collaboration of Laura A. Dale. Published by Harper & Brothers.)

Infra-red films, taken during seances at a spiritualist camp, revealed that "materializations" were all-too flesh and blood

REVOLT IN SPIRITLAND

Hans Holzer

SINCE MIDSUMMER, 1960, the semi-monthly spiritualist newspaper *Psychic Observer* has engaged in a vigorous campaign against apparently fraudulent seances at Camp Chesterfield, a major center of organized spiritualist activities in the United States. This camp, located in Indiana, operates under the direction of an energetic octogenarian, Mable Riffle, and accommodates a group of mediums of every type. The stream of visitors is never-ending. Unlike England and the Continent, where materialization seances are often held in private homes, in the United States, the country where modern spiritualism was born, the Camp has been the place where such phenomena may be observed. Chesterfield, together with Camp Silverbelle in Ephrata, Pennsylvania, has long dominated the spiritualist scene.

The editorial attacks of the *Psychic Observer* have centered on alleged physical phenomena, specifically the supposed "materialization" of spirit entities during several seances or sittings. Naturally, this involved the individual mediums at Chesterfield who "produced" the

materializations. The *Psychic Observer's* revelations, documented by infra-red motion picture film, have sparked the spiritualist world with charges and counter-charges. This, however, is not a new story. Its roots go back to the late nineteenth century, when the first scientific tests were applied to "materializations" by the German physician Baron Albert von Schrenck-Notzing. Since that time, no other branch of psychic research has been subject to so much discussion, doubt, accusation and unmasking of fraud. The temptation to produce fraudulently the alleged likeness of a "dear departed" has always been with us. What is new in the current exposure is that a leading spiritualist periodical has led the movement to expose fraudulent practices and persons, and has sounded the call for scientific tests of physical mediumship.

The *Psychic Observer* was founded many years ago by a then ardent and thoroughly convinced spiritualist, Ralph Pressing. A few years ago, Pressing retired and was succeeded by a younger man, Tom O'Neil. Above the masthead of the weekly publication, the word "Truth," with a radiant sun, expresses the publication's creed. For years, the *Psychic Observer* has opened its columns to opinions and minor controversies—the largest of which, perhaps, was the question of reincarnation versus spiritualism, a conflict not easily resolved. Its influence in the spiritualist world can be measured by the fact that most spiritualist churches, mediums, lecturers, healers, and of course the camps, advertise their existence in it. It is one of the two main journals for spiritualists, the other being *Chimes* on the West Coast.

WITH ITS JULY 10 ISSUE, the *Psychic Observer* came face to face with the full implications of the word "truth" on its masthead. The consequences were stirring and painful for both its editors and readers. The issue proclaimed from its front page, bordered in heavy black: "We Are Mourning: The Tragic Deceptions in Materialization! Or Why Spare the Angels?" The inside page carried the boldly printed headline, "Fraud Uncovered at Chesterfield Spiritualist Camp: Infra-Red motion pictures reveal this great deception—shocking—amazing—but True!"

What followed was the account of its outraged editor, Tom O'Neil, who had gone to Chesterfield in the hope of photographing genuine

manifestations: "Not to research, not to investigate, but to record only with the most modern technique of the day, the motion picture camera, infra-red lighting and infra-red film. Used in conjunction with this most modern approach was the Observer-Scope commonly called 'Snooper-Scope' by the Armed Forces. This instrument was used to clearly observe the enemy regardless of darkness at a distance of a thousand feet . . . this then was our approach, with permission granted from all parties concerned, to be putting on the record the great truth of MATERIALIZATION."

The great truth, to which Mr. O'Neil refers was his exposure of the orthodox spiritualist theory of materialization. This theory postulates that a tissue-like substance, called ectoplasm, emanating partly from the medium and partly from the sitters in the seance room, is shaped into a mask-like covering, roughly resembling the features of the "spirit" called forth in the seance. According to this theory, the spirit uses the ectoplasm to cover an otherwise invisible spirit body, so that it becomes "material" in every sense and may even be touched. At the end of the seance, the spirit withdraws, the form collapses, and is quickly absorbed back into the bodies of the medium and the sitters. All practitioners of physical phenomena agree that the total darkness or, at most, a red light, is necessary to permit the materialization to occur. Any strong light will allegedly inhibit it. It is usually explained that light destroys the sensitive ectoplasm.

Being sure that his investigation would support this theory, and thereby scientifically verify the truth of materializations, Mr. O'Neil secured the services of Dr. Andrija Puharich formerly director of the Round Table Foundation at Glen Cove, Maine, and author of *The Sacred Mushroom* (Doubleday & Co., New York, 1959), which associated ancient religious rites employing mushrooms with psychic phenomena. The two men were welcomed at Camp Chesterfield, and promised every cooperation. The medium was to be Edith Sitwell, with Mable Riffle, the camp supervisor, acting as "cabinet attendant;" that is, a kind of director of the proceedings. Dr. Puharich, telling the story from his own point of view, in the *Psychic Observer* of August 10, recalled that he did not have his motion picture equipment in working condition the first night, but his "infra-red visual monitoring system"

was ready for whatever was to come. Edith Sitwell sat *in front* of the "cabinet," a dark area curtained off to protect the materialization medium from lightrays. After some hymn singing—to bring on the "spirits"—Puharich noticed through his telescope "above the top of the curtain of the cabinet . . . a luminescent glow. Soon the glow appeared behind the curtain, the curtain parted, and out stepped a shimmering and luminescent figure, who spoke in a masculine voice and announced himself as Brother Benois." Brother Benois was not the only obliging spirit that evening. A female spirit also appeared and gave her name as Sister Mary.

According to Dr. Puharich, he had not noticed anything unusual until the conclusion of the seance: "When Mabel called a halt to the production of spirits, I noticed that Edith reached around and gathered in the curtains of the cabinet side nearest her, and with the other hand reached out and gathered in the swinging curtain of the door behind her. By gathering the two together she made a curtained passageway between the cabinet and the door entering her home." And just for an instant, above this passageway, Dr. Puharich noted "a head scuttling from the cabinet to the door. . . ."

THE FOLLOWING NIGHT, Edith Sitwell again sat in front of the cabinet. This time, Dr. Puharich had his telescope trained on her. His efforts were not in vain: "As the lights went out and the singing started, I noticed that Edith's first move was to gather up the curtains as she had the night before, and as we were making noise and trying to get eyes adjusted to the dim red light, I clearly saw the figure of an American 'Indian' enter the room by the door behind Edith, and pass into the cabinet. While the sound of the prayer was going on, I clearly saw a female figure enter by the same door and pass into the cabinet. In a few moments an Indian 'spirit' came out of the cabinet.

A moment later, Dr. Puharich saw the female figure coming from the cabinet and heard her announce herself as Tom O'Neil's "spirit guide," Nita.. After she had disappeared, another female figure made her entrance, and, wearing somewhat different clothes, announced that she was Tom's grandmother. Dr. Puharich was not deceived: "I could clearly see that Grandma Vess and Nita were the same person."

The infra-red camera was at last in working order in time for the following night's seance. Again, the same thing happened. Two people entered the cabinet and left by the same route, each time shielded by the curtains. Only then did Puharich tell O'Neil of his misgivings. Although a dedicated and formerly uncritical spiritualist, the publisher of the *Psychic Observer* took the news calmly. The two men agreed that they would ask the women to place two chairs before the door leading to Edith's rooms. Their request was granted, but no "spirits" appeared that night. This, the women explained, was due to the lack of faith of the two observers. Fearful that they might tip their hands prematurely, Puharich and O'Neil let the matter rest, but sat again in seance the following day. This time Dr. Puharich, using the infra-red telescope, saw clearly how someone manipulated the curtains from inside the cabinet in a manner that might shield anyone coming out of the doors leading to Edith's rooms. He also saw someone move the two chairs out of the way, which was followed by the "appearance" of two people, who later emerged from the cabinet as "spirits."

All this was painstakingly filmed. At the request of O'Neil and Puharich, the mediums were photographed with the alleged "materialized spirits" at the same time. The impersonators waved bits of gauze, dipped in luminous paint, around themselves to create the impression of swirling ectoplasm. That was the last of their materialization seances. The following day, O'Neil and Puharich packed their equipment and left the Camp.

Any doubts that remained about the identity of the "spirits" were soon dispelled when the film was developed. Ralph Pressing, former publisher of the *Psychic Observer* and a long-time resident at the Camp, identified every one of the "spirits" as "look-alikes to mediums residing on the premises of the Chesterfield Spiritualist Camp." The spirit who had announced himself as one "John William Draper" was easily identified as Homer Watkins, and the etheral "Sister Agnes" turned out to be nobody else but Penny Umbach, both resident mediums at Chesterfield.

FOR TOM O'NEIL, the disclosure of fraud was virtually an act of heroism. True, he did not condemn the entire field of materializations

("materialization is a matter of record in the files of many Psychic Researchers, and we too, have files of photographs to prove it") but he had stirred up a tempest in the spiritualist world. Amid a mounting tide of congratulatory letters, there were also some which defended Chesterfield and refused to believe the exposés. Those, O'Neil printed also, but within a heavy black border. A few spiritualist churches were among those who curtly ordered O'Neil to stop sending his paper. But the majority of letters from individuals, mediums, and churches upheld the house-cleaning and pledged additional support to the courageous publisher.

In the meantime, on August 25, he continued publishing the exposé pictures. Gladys Strohme, one of the Chesterfield mediums was shown in "real life" and while masquerading as a spirit who called herself "Judith."

In that same issue, O'Neil, in a sober editorial, admitted the sacrifices he was prepared to make in the interest of truth: "We gave up, with pleasure, the Chesterfield advertising account (which was considerable) plus the thousands of *Psychic Observers* that were sold at the camp every year. We just would not, could not, live with ourselves knowing that the Chesterfield Spiritualist Camp was bilking so many people of so much money. . . ." The take, according to Dr. Puharich, had been close to half a million dollars a year.

Since Ralph Pressing, founder of the *Psychic Observer*, had for years been a resident at Chesterfield and a firm believer in the practices there, he returned from retirement to write in the September 25 issue, "You must remember, from approximately 1940 to 1952, I went all out for Chesterfield . . . I thought I was doing the right thing." That Chesterfield is by no means an isolated case, was disclosed by Pressing in later articles: ". . . All the while, dumb old me was being hoodwinked in many a materialization seance, not only at Chesterfield but many others seats of 'higher' learning in the field of Spiritualism. . . . so now you must realize why I must write this series of articles (before I die)." That same issue also carried a full-page photograph of a fraudulent "spirit" and a large photograph by O'Neil asking for a "Physical Medium to sit under 'snooper-scope' test conditions. Good Pay-Short Hours."

In an editorial, O'Neil told his readers where and how they could obtain luminous and other "materialization" properties used in fake seances. More letters were printed, and "The Black Border Department" also received new recruits. Most of the critics were afraid that O'Neil's exposé "would hurt every Spiritualist the world over." O'Neil commented upon this as well as some of the more naive criticisms levelled against him. By and large, however, the spiritualist movement stood behind him. In the October 10 issue, Ralph Pressing continued his personal crusade with a headline announcing, "Materialization Unmasked," directed mainly against Mable Riffle.

Both O'Neil and Pressing state that what they now want, above all else, is to restore faith in the veracity of physical phenomena. They hope to accomplish this by having bona-fide mediums sit under test conditions before an infra-red camera and telescope, "to be able to publish pictures of *real* materialization and forget about Mable's folly and the whole sordid mess." O'Neil in an editorial of October 10, viewed the exposé as an opportunity for the National Spiritualist Association of Churches "to clean house," to find leaders who are willing to "face known facts," introduce "new faces of mediums, making a better way of life for the true Spiritual seeker, who needs to find his way to the *Living* 'Dead', not to the *Dead* 'Living.' "

The idea of a previous existence is alien to the Western mind, while it is almost too readily accepted within Oriental credos

REINCARNATION— EAST-WEST VIEWS

Ian Stevenson

SPIRITUALISTS all over the world are united in one conviction; namely, that human beings survive physical death in some form. They are, however, far from united with regard to the nature of the next life and the possibilities of rebirth into terrestrial existence. With the exception of certain groups which I shall mention later, the idea of reincarnation has never had in the West the strong hold it has in the East.

When asked about the evidence for reincarnation, Indians who believe in rebirth are apt to reply by citing a number of stories of persons who have claimed to remember past lives. They might mention, for example, the story of Jagdish Chandra. He was a little boy of three living in Bareilly, India in 1926, when he suddenly asked his father to get his car. When asked about this, he told about the automobiles his family had owned in his "previous life." Jagdish said he had lived in Benares and gave the name of his father, mother and brother. In addition he mentioned about fifteen rather specific details of the house he lived in and of his family's interests, habits and cus-

toms. His father took the precaution of writing down all these items of information and then of writing to Benares, which his son had never visited, for possible verification of the information the boy claimed to remember. All the boy's statements were found to be accurate, with the exception of the name of his father in his previous life. The man named turned out to be his grandfather, but the boy (of the previous life, who had died at age 12) had grown up in his grandfather's home, did not know his real father and therefore may naturally have thought his grandfather was his father. Later, Jagdish was taken to Benares where he led the way through the streets to the house he claimed to have lived in and recognized other places of the area.

The father of Jagdish Chandra, Mr. K. N. Sahay of Bareilly, India, collected five other stories of similar memories of previous lives which he had looked into and considered verified. He put them together in a booklet published in 1927. About ten years later, in 1936, another pamphlet was published in India containing an account of a previous life apparently remembered by a little girl living in Delhi. This girl, Shanti Devi, claimed to remember even more details than had Jagdish Chandra and the other children of Mr. Sahay's booklet. She claimed to remember the name of her previous husband and many circumstances of their life together in the town of Muttra, eighty miles from Delhi, which she had never visited.

In the case of Shanti Devi also. verification of the items remembered was made partly through independent inquiry by mail and partly during a visit by Shanti Devi to Muttra. There she recognized and correctly named a number of persons who had been her relatives in the previous life. She recalled details of her previous homes, including a special hiding place where she had left some money in one of them. This was found but the money was not. Her husband of the previous life then confessed that he had removed the money after his wife's death.

WESTERNERS, whether spiritualists or not, are inclined to dismiss such stories as likely to be a compound of fraud and vivid imagination. It is well known they are likely to say, that people in the East believe

in reincarnation and so they provide uncritical audiences for the elaboration of fantasies until they seem to be facts. But there are really two questions to be asked. The first question is are any of the stories of memories of previous lives what they claim to be? The second question is: What are the features of a culture which make it especially receptive or hostile to the telling of such stories? We must try to keep the answers to these questions separate. In this article I shall consider only certain aspects of the second question.

With regard to the receptivity to stories of reincarnation in the East, some Western psychologists have already offered one explanation. They believe that Asian convictions about reincarnation harmonize with the poverty and (supposed) apathy of the people in Asia. According to this view, reincarnation and the associated doctrine of karma assist the suffering peasant to accept the evils of his situation by attributing them to his own wickedness in a previous life. When one can do nothing about one's condition, one can find relief in a philosophy which seems to explain the inevitable. If one cannot change one's caste, one might as well merit the caste one found oneself born in. One can thus replace a sense of helplessness with a feeling of power by realizing that, after all, one brought current suffering on oneself. This explanation leaves out of account the fact that wealthy and high-placed persons believe in reincarnation in India, just as much as members of the lower castes; unless, that is, they have acquired Western attitudes toward the subject.

Apart from this, however, Westerners misunderstand the Hindu doctrine of karma when they suppose it means inactivity and acceptance of conditions as they are. Hinduism (certain forms of Buddhism differ in this respect) does not teach passivity in the face of misfortune; it teaches instead that good deeds can mitigate the effects of bad karma. Westerners often confuse *satyagraha,* exemplified by the passive resistance of Gandhi and his followers, with inactivity and acceptance of conditions as they are. Gandhi's policies led in the gentlest, but most effective, manner to Indian independence.

IN THE WEST, attitudes toward reincarnation have differed greatly at different times and still do in different countries and among differ-

ent groups of the same country. Why these fluctuations in attitudes towards the the subject occur, I cannot say. But that they do happen is undeniable and easily illustrated. I shall give a few further examples of these cultural variations in attitudes towards the subject.

In ancient Greece, reincarnation formed a central theme in the doctrines of Plato and his followers. A little later in the near East, the Essenes, now considered the lineal predecessors of the early Christians, taught reincarnation. Comments obviously referring to reincarnation occur in the New Testament. In *Matthew* (16:13-14) Jesus asks, for example, "Whom do men say that I am?" To this question his disciples answered: "Some say that you art John the Baptist; some say Elijah; and others, Jeremiah or one of the prophets." (This passage includes an absurdity in that John the Baptist is also supposed to have been a contemporary of Jesus. I mention the passage only as an illustration of the apparent acceptance of reincarnation as a possibility in Biblical times). Again, in *John* (9:3) the disciples ask Jesus with regard to a man born blind: "Who did sin, this man or his parents, that he was born blind?" These and a number of other similar allusions leave no doubt that the people of that time and place found reincarnation plausible, although we do not know how many of them believed in it. We have grounds for thinking that many early Christians believed in reincarnation for several centuries after the death of Christ. The sects of Gnostics and neo-Platonists openly taught it and seem to have enjoyed toleration for a time. After about the fourth century A.D., orthodox Christianity rejected reincarnation.

In modern times, rather sharp differences have occurred in attitudes towards reincarnation among spiritualists in Western countries. Someone has cynically commented on the fact that communicators through French mediums almost invariably endorse the doctrine of reincarnation, if they do not actually expound it. In contrast, the communicators of English mediums speak little and generally disparagingly about reincarnation. In these differences one may see the considerable influence of the nineteenth century French writer, Allan Kardec, who wrote extensively on reincarnation and had a powerful effect on spiritualism in France. Again, the feverish if transient interest in reincarnation excited in this country by the publication of *The*

Search for Bridey Murphy, by Morey Bernstein, (New York, 1956) found no echo among Europeans. Many of them thought the preoccupation of Americans with this subject no more or less ridiculous than our other fads, such as flagpole sitting or Davy Crockett.

MEDIUMS themselves, I have found, may disagree with their controls on the question of reincarnation. Let us consider four mediums and their controls with whom I have some acquaintance. The first medium, in her conscious personality, has little interest in reincarnation and generally adopts an attitude of extreme skepticism toward it; her chief control, on the other hand, expresses impatience with those who cannot grasp the fact of reincarnation which seems so obvious to him. The second medium in his conscious personality accepts reincarnation but seems to have rather little interest in the subject; his control again has much stronger convictions about the fact (for him) of reincarnation. The third medium in his conscious personality again has relatively little interest in the subject and does not believe it occurs; his control says he thinks some persons do reincarnate, but not everyone. Another medium, Edgar Cayce, had no conscious interest in reincarnation and little or no knowledge of the subject when, in his trance communications, he began to expatiate on reincarnation as if it were established truth.

This little group of four mediums might seem to suggest that controls and perhaps communicators favor reincarnation even when their mediums do not. But some communicators deny reincarnation. Mrs. Wickland, a medium studied extensively by her husband, Dr. Carl Wickland, had a communicator who purported to be Madame Helena Blavatsky, the founder of Theosophy. She took the opportunity afforded her of saying through the medium that although when alive she had preached reincarnation, she had now discovered the whole subject was rubbish and wished to recant everything she had previously taught. I have quoted these various opinions of mediums and their communicators to illustrate diversity of beliefs on the subject among Western spiritualists, who are often divided on this subject, not only among themselves, but perhaps within themselves.

Opinions and attitudes based on cultural differences cannot contribute to the factual question of reincarnation, but they may inhibit the full development of data which might contribute. For example, it is generally supposed that tales of apparent memories of former incarnations occur much more frequently in the Orient than in the West. In my collection of such cases, gathered from the literature or sent to me by helpful correspondents, I have found sixty cases in which one person (the rememberer) claimed to remember a former life as another person, where the other person was definitely identified as having had the name, characteristics, or events happen to him which the rememberer said he recalled. I will not, in this place, discuss the various possibilities which arise in considering these cases. I have reviewed and analyzed these cases in the *Journal* of the American Society for Psychical Research for April and July, 1960. Of relevance here is the fact that, of these sixty cases, almost half came from India and Burma, two from Tibet, one from Japan, two from Syria, one from Africa, and the rest from the Occident. On the basis of the populations of India and Burma, on the one hand, and the Occident on the other, we should expect even more cases from the Occident in comparison to those from India and Burma.

The uninformed reader may take the relatively large number of cases coming from India and Burma as confirming the readier and gullible acceptance in these countries of stories about reincarnation, because such stories harmonize with the prevailing religions. According to this view, they simply show that people imagine or believe what they want and expect to find. Such critics would place these stories in a category with many wish-fulfilling hallucinations of the West, such as visions of saints which harmonize with Christianity in certain of its forms.

Some other factors, however, make this explanation of the discrepant numbers of cases in East and West less than fully explanatory of the difference. In the first place, supposing for a moment that reincarnation is a fact, the hostile attitude toward it in the Occident might lead as much to a suppression of stories of former incarnations as the favorable attitude in the East might foster the free telling of such experiences. We do not know how many children in the West

have tried to talk about experiences which may have occurred in former incarnations, only to have their first utterances suppressed as nonsense by listening but unhearing parents. I have heard of a small number of such instances which seem to have occurred in the West.

In this connection, I find it of interest that two of the cases in my collection occurred among a small religious sect known as the Druses who inhabit an area in Syria and Lebanon. They number only a few thousand. They began as a sect of Mohammedans but have quite separated from the parent group. Reincarnation is a cardinal tenet of their religion, although it is not part of the religious system of the Mohammedans, Jews, and Christians who surround and very much outnumber them in that part of the world. I have not come across many accounts of apparent recall of previous lives among the other religious groups of this area. Skeptics with regard to reincarnation may say of the Druses what they say of the Indians, that the occurrence of such stories among them is to be expected in view of their religious convictions. But it is also possible that because the Druses believe in reincarnation, children are free to tell, and parents are free to record, such stories.

We should note, moreover, that the attitude in India and Burma is by no means entirely favorable to the telling of stories of former incarnations. Children of India who recall past lives are known as *Winzas,* and are often thought to be unlucky and fated to die young. A consequence of this rather wide belief or superstition is that parents have frequently attempted to stop a child from talking about his apparent recollections. They have sometimes forbidden him to talk of the memories. They have postponed attempts to verify the child's statements about a life in another time, until the child's importunate pleas forced them to yield and make inquiries. Notwithstanding this limitation, I think it undeniable that in India and Burma a child will find that those to whom he tells a story of a former life will find his story potentially credible, even if they wish he had not told it.

IN INDIA AND BURMA the cases of apparent remembrances of former lives all (with one exception in my collection) started in childhood. Moreover, many of the accounts of these Eastern cases describe

a fading of the recollection with increasing age as the child grew up. In contrast, the recollections which occur among Westerners seem to start in adulthood more often and the memories do not seem to fade so much with increasing age. These differences may derive from the general tendency for the fading from memory of childhood experiences of any kind. Cultural attitudes, however, may hasten or retard the process. The pressure to forget such memories, which exists in India and Burma, may accelerate forgetting.

Incidentally, the neighboring Tibetans do not have the superstitious belief in the misfortune of remembering past lives held by many Indians and Burmese. Far from being considered unlucky, the remembrance of a past incarnation is often a requirement for certain high positions, such as abbot of a monastery. The rememberer, or *tulku* as he is called, must pass tests in the recognition of objects belonging to the person he claims to have been when these are presented to him mixed with other objects which did not belong to that person. In her book, *Magic and Mystery in Tibet,* Madame Alexandra David-Neel describes two cases of verified instances of claimed memories of previous lives which she witnessed. In one instance the *tulku,* when a young man, had set out from his home to find the monastery of his previous life. Eventually he recognized the present monks whom he had never previously met in his current life and gave them satisfactory evidence of his previous identity. In the other instance, the *tulku* when a boy recognized a snuff box which he said had previously belonged to him when he was head of a monastery. He also gave additional items of information which apparently he could not have learned normally and was accepted by the monks as their leader.

Apart from the common Western misunderstandings of the meaning of reincarnation to Asians, Westerners often make the further mistake of supposing that if they understand the place of reincarnation in Oriental religion they have therefore explained it away. But beliefs and our reasons for them can tell us nothing of the facts of the matter about which we hold the beliefs. People may believe or disbelieve in reincarnation for rational and for neurotic motives. None of these beliefs or the underlying motives for them has any relevance to the question of whether or not reincarnation occurs.

Unfortunately, if cultural attitudes towards reincarnation cannot affect the facts of the subject, they can affect inquiries into these facts. We need to remember that Western psychologists lie entrapped in the *Zeitgeist* of their culture as much as Oriental psychologists. Thus both Western and Eastern psychologists may have difficulty in approaching the subject of reincarnation in an appropriately dispassionate manner —the Westerner because the concept seems to him too ridiculous to deserve serious inquiry, the Easterner because the facts seem so obvious as to deserve no further inquiry. Such extreme positions can limit further investigations into reincarnation and other possible evidences of survival of physical death. The implications of such evidence for human behavior and man's survival on this planet make the effort involved in transcending cultural barriers fully rewarded by whatever light further research may cast on these questions.

The author asks that readers who know of reliable cases of the type discussed in this article, send them to:

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The Secretary of the ASPR was a remarkable psychic researcher; "truth though the heavens fall" was his underlying philosophy

RICHARD HODGSON— PIONEER INVESTIGATOR

Gertrude O. Tubby

RICHARD HODGSON was probably the greatest psychic investigator of the nineteenth century. He was Secretary of the American Society for Psychical Research, although he had previously been an active member of the Society for Psychical Research in London. A gentle and affable bachelor, a healthy recluse who was inordinately fond of children, of walking, fishing, boating and swimming, he betrayed no outward sign of the passionate and merciless regard for truth and facts in all things psychic that earned him respect among scholars and fear among frauds and charlatans. He worked closely with the outstanding Boston medium, Mrs. Leonore E. Piper, for more than fifteen years, and it was largely this investigation that made him a firm believer in the survival of human personality after death. Nevertheless, in all those years he remained primarily the objective scientist seeking the hard data about survival after death.

His epic investigation of Mrs. Piper's mediumship, a long and exhausting process, which frequently included three sittings a week by

himself and others, not to speak of analyzing the results of those sittings, inevitably led to a warm social relationship with Mrs. Piper and her family. She had the highest regard for him as a friend as well as a scientist, and she sometimes sought his help and advice on matters far removed from her mediumship. He gladly gave this help, but it is characteristic of Hodgson that he also employed detectives at one time to follow Mrs. Piper and her husband so that they could report to him any suspicion that she was obtaining information for her sittings from normal, rather than supernormal, sources. Mrs. Piper was taken aback by these methods and complained to Dr. Hodgson even after the detectives called the Pipers a completely honest couple who attempted no subterfuge in the important psychic investigation Hodgson was directing. But Mrs. Piper finally agreed such precautions were necessary when Hodgson explained how important it was to remember always that she was the subject of a searching scientific experiment and that their friendship must not in any way weaken that inquiry. As A. T. Baird, Hodgson's biographer, remarks, and as so many of his investigations confirm, the man's lifelong principle as a psychic detective was, "Truth though the heavens fall."

Before coming to the United States from England in 1887, Hodgson had achieved a measure of international fame; as a representative of the English Society for Psychical Research he had, two years earlier, gone to Adyar, India, to investigate the alleged miracles performed there by Madame Helena Blavatsky, head of the Theosophical Society at its headquarters in South India. Initially the S.P.R. was rather favorably impressed—from London, that is—with the claims of the Theosophists. Madame Blavatsky, they said, had received supernormal powers from two Mahatmas, Koot Hoomi and Marya, members of a Brotherhood with magical powers who now lived in Tibet after many reincarnations. With these powers the internationally famous Russian-born woman had caused apparitions to appear wherever she wished, had communicated with people in phantasmal form, and had been able to cause the projection of these forms anywhere in the world.

At Adyar, from November 1884 to April 1885, Hodgson investigated these "astral projections," as they are called by Theosophists, examined witnesses of the alleged miracles, and talked at length with

Madame Blavatsky and her chief associate, Colonel Henry Steel Olcott of New York. He studied the facts concerning the materialization of a teacup at a picnic, the movement of objects without force through solid matter, and the spontaneous appearance on blank paper of messages in the handwriting of the Mahatmas. He also studied the so-called Shrine in the Occult Room at Adyar, which he found was so constructed that the astral letters, with the handwriting of Koot Hoomi and Marya, could easily have been inserted in the Shrine with the aid of panels opening onto the adjoining bedroom of Madame Blavatsky. As for the material projections of human forms which supposedly appeared at Adyar, Hodgson's painstaking investigation—his report, complete with diagrams and testimony, runs to over two hundred closely printed pages in the *Proceedings of the S. P. R. for 1885* —proved that the "astral" forms were little more than colleagues whom Madame Blavatsky had assembled and disguised for precisely that purpose. Furthermore, handwriting experts, including one from the British Museum, agreed that the writing on the letters, alleged to have come from the Mahatmas in Tibet, was identical with the Blavatsky penmanship.

Dr. Hodgson was forced to denounce Madame Blavatsky as a fraud. In turn, he was denounced as dishonest and unjust by many eminent persons, and he still is excoriated by many Theosophists. But the S.P.R. supported him completely, calling Madame Blavatsky one of the most extraordinary "imposters" in history, while again affirming its satisfaction with "the thoroughness of Mr. Hodgson's investigation and complete reliance on his impartiality."

HODGSON, WHO ACHIEVED his greatest fame for his psychic investigations in India, England, and the United States, was born in Melbourne, Australia in 1855. As a youngster he had had some psychic experiences and avidly read the articles about the occult in the British journals. He attended local schools and the University of Melbourne, where he received four degrees: Bachelor of Arts (1874), Master of Arts (1876), Bachelor of Laws (1875), and Doctor of Laws (1878). He had planned to practice law, but his truest impulses were clearly toward poetry, philosophy, and, above all, the occult. In

1878 he left for England and entered St. John's College at Cambridge because, it is said, that had been the college of his literary idol, William Wordsworth. After graduation from St. John's, where he had been a member of the undergraduate Society for Psychic Research, he went to Jena, Germany, for further studies in science, philosophy, and poetry. On his return to England, he became a university extension lecturer in poetry and philosophy. One of his lectures, it is well to recall, was entitled even in those early days "The Mind and the Senses."

Thanks to his friendship with Henry Sidgwick, Professor of Moral Philosophy at Cambridge, who had been impressed with Hodgson when he first came there, the young man was appointed Cambridge Lecturer on the Philosophy of Herbert Spencer. Sidgwick, one of the founders of the S.P.R., appreciated particularly Hodgson's keen observation of the work of mediums and his refusal to accept what so many other observers said was patently true. Hodgson participated in sittings with many mediums and, with one exception, denounced them all as frauds, including William Eglinton. This man claimed he could bring about physical materialization, a phenomenon accepted by far too many persons at that time. This was especially true in post-Civil War America, where there was much shameless and fraudulent playing upon the credulity of families saddened by the loss of sons, brothers, and husbands. Although Hodgson became a firm believer in survival, he could never bring himself to accept the validity of physical materialization.

Hodgson continued to denounce as trickery the work of many others even when they had received high praise from such an authority as the naturalist, Alfred Russel Wallace. Hodgson continued his exposes even when fellow-members resigned from the S.P.R. because they thought he was too harsh in his investigations of mediums. Undeterred, Hodgson concluded one of these studies in a paper entitled "Mr. Davey's Imitation by Conjuring of Phenomena Sometimes Attributed to Spirit Agency," with these words: "The great bulk of the testimony of physical [materialization] marvels is not entitled to serious consideration as affording any great evidence of supernormal phenomena. I may conclude with a warning, especially to our friends in

America, that nearly all mediums are a gang of vulgar tricksters who are more or less in league with one another . . . These tricksters are continually deceiving fresh groups of uninitiated observers of their phenomena, and I frequently receive accounts of them which I need hardly say are entirely worthless . . . It is not from the professional mediums—so numerous in the United States—for slate-writing "materializations' and kindred performances, that we look for any enlightenment whatever on the positive side in the course of Psychical Research."

Many persons thought, nevertheless, that this good-natured but ruthlessly scientific young man would surely see merit in the remarkable and seemingly supernatural feats of the jugglers and fakirs of India, particularly as described by one Harry Kellar in his article, "High Caste Indian Magic," which appeared in the January, 1893 issue of the *North American Review*. This was then the most respected magazine in America, and its contributors included such men as James Russell Lowell, Henry Adams, Ralph Waldo Emerson, William Cullen Bryant, Washington Irving, Henry Wadsworth Longfellow, and William Dean Howells. Kellar actually suggested that "the high caste fakirs of India had probably discovered natural laws that we in the West are ignorant of."

Hodgson demolished Kellar's arguments, pointing out numerous inaccuracies in his article, including his claim to have witnessed a case of levitation as he, Kellar, looked on with 50,000 other spectators, among them the Prince of Wales. Hodgson remarked that he, too, had been to India and had seen some remarkable feats of alleged magic, but it was always man-made magic whose secrets were revealed by the mere presentation of a little baksheesh. "Have caution," warned Hodgson, "in accepting too readily the uncorroborated dicta of eminent men, whatever the source and whatever the tendency . . . There is no royal road to sound opinion on such matters—save to examine every narrative on its merits, the mind meanwhile prepared for either fate—whether to prick the bubble of pretension into empty falsity or to discover beneath some unpromising envelope a germ of truth. . . ."

Although he was a meticulous scientist who often worked himself to exhaustion, and never permitted a warm friendship to divert him

from the severe, undeviating search for truth, Hodgson could, nevertheless, become the engaging companion and outdoor enthusiast who hardly fitted the stereotype of the laboratory grind. Thanks to my friendship with Mrs. Adelaide Bayley Snyder, daughter of Dr. W. D. Bayley, Vice President of the Bancroft School for Feebleminded Children, Haddonfield, N. J., at whose summer home in Maine Hodgson often relaxed, I have been able to catch from her descriptions and memories the picture of a most attractive man.

Mrs. Snyder was a little girl then, but she recalls vividly that Hodgson was the friendly and enormously popular "Uncle Dick" to her and the other children at the Owl's Head cottage in Penobscot Bay during the years near the turn of the century. Uncle Dick was a near six-footer in English tweeds, plus fours, heavy worsted hose, husky oxfords, and the ever-present pipe, all of it magnificently striking, but accentuated further by a white head of hair, a gray-white pointed beard, and a handsome profile. "He was magnetic, an almost overpowering personality," Mrs. Snyder recalls. "He had a beautiful baritone voice and he used to boom out greetings to friends and visitors in deep, hearty, and extremely pleasant tones."

She also remembered some of the other remarkable men who used to come up to Owl's Head in those days and talk so long about fake mediums. There was a Dr. McDaniells, who headed the Department of Greek at the University of Pennsylvania; Dr. James McKee, an outstanding pediatrician; the well-known Philadelphia and University of Pennsylvania neurologist, Dr. Solis Cohen; Professor William James of Harvard; and a woman too, the famous medium, Mrs. Piper of Boston, a cultured lady who was a fine violinist.

Hodgson liked long walks and swims, and he did not mind water that was often as cold as fifty degrees and was never warmer than sixty five. It was not always serious talk there, and occasionally these men indulged in horseplay, such as the time they tried to startle Hodgson one night when he arrived after they all had retired. Mrs. Solis Cohen and Adelaide Bayley Snyder still recall the daylong elaborate preparations by the learned cronies; wires through Dick's doorframe connecting with a wire figure clothed in fluorescent cheesecloth draperies, hidden behind a mirror opposite the foot of his bed.

As soon as he put out his light and settled to sleep, they crept to his door and pulled the realistic figure slowly up into view. He rose and started a search, but the figure melted down behind the mirror silently. He retired again, and the "materialized" form once more rose to plague him. Again he prowled—but a tiny squeak in one of the pulleys betrayed the rascals. He rushed to open his door on the gleeful huddle in the hall. Uproarious guffaws from the whole group—Bayley, James, Newbold, Cohen, and Hodgson, himself, who relished the joke on the arch enemy of fake apparitions as much as any of them.

And yet this extraordinarily warm and appealing man, so attractive to children and adults, who so obviously gloried in the outdoors and may have suggested by his manner that he was unacquainted with the guile of men in the workaday world—this man, Richard Hodgson, was one of the great doubters of recent scientific history. He could—and did—return from the rocky Maine coast and his long walks beside it to his tiny office and laboratory in Boston, equipped again with that healthy doubting quality and the incredible power of concentration on a task and a problem which demanded a merciless search for the truth, wherever it would lead and whomever it might hurt.

It was this skepticism of a fine investigative, scientific mind which recommended Hodgson so highly when the newly-formed American Society for Psychical Research was seeking a Secretary for its Boston headquarters. A group of eminent psychologists and philosophers from Harvard, Columbia, Johns Hopkins, and the University of Pennsylvania had founded the organization in 1886. At the first meeting of the ASPR, most of them discussed Thought Transference, Guessing, Apparitions, and related phenomena in some detail. Professor William James of Harvard was at this meeting, and he demonstrated—rather than discussed—a theory by putting a Mr. Carnochan into a hypnotic trance. This was the same William James whose discovery of the Boston trance medium, Mrs. Leonore E. Piper, probably encouraged Hodgson to the point where he finally accepted the invitation to come to Boston, although initially for one year only.

Dr. Hodgson had grown fond of England. It presented many opportunities to test his great skills as a psychic investigator; most of the towering figures in psychic study and research lived and worked

there where he could consult with them daily. He liked the country because its very atmosphere was congenial to a scholar who was also an amateur athlete, a man who could cast off temporarily and without explanation the burdens of the laboratory and the responsibilities of directing an important investigation. In England, a man could with far greater ease than in America, shed great burdens and go for a walk in the country.

BUT A GREAT OPPORTUNITY awaited him in Boston. He came reluctantly in 1886, at the age of 31. However, in a very short time, Boston and the United States were home for him, more than England had ever been. He visited England only once after he took up his work here. He was to continue in Boston the many investigations which have given psychic research in America much of the solid body of work on which others have built, but his greatest contribution came out of his intensive observation of and work with Mrs. Piper.

During most of this period he lived austerely in a one-room apartment at 15 Charles Street and worked nearby in the two-room office of the Society at 5 Boylston Place, with one assistant—first, Miss Anne Manning Robbins, and, later, Miss Lucy Edmonds. He received about $1,000 a year for his long days and nights of sittings, study, and analysis, and frequently his pay checks arrived late. He confessed to my old chief, Professor James H. Hyslop, that one evening all he could afford for dinner was a bunch of celery.

William James had first heard of Mrs. Piper from his mother-in-law, Mrs. Gibbens, who had gone to her for a sitting out of sheer curiosity. But Mrs. Piper had astonished her visitor by telling her a great deal about her family history, her relatives, living and dead. Prof. James listened tolerantly, but said it was not so remarkable, for Mrs. Piper might well have got hold of a family history and waited for her to come, as she did, and as her sister-in-law did later.

But James also decided to look in on Mrs. Piper himself. He had several sittings with her, sent others to her, and published some of his findings in 1886 in the *Proceedings* of the A.S.P.R. She turned out to be much more complex a lady than he had expected, but he was still

far from convinced that Mrs. Piper could actually communicate with the dead through her control, a French physician named Dr. Phinuit Scleville. Mrs. Piper obviously warranted careful and systematic study. He introduced Dr. Hodgson to her in May, 1887.

After six sittings, Hodgson was astonished. He had gained vast experience with mediums, conjurors, spiritualists, other workers in the occult. Nevertheless, it is most significant that this arch detective, this man so feared by the frauds in psychic work, arranged almost immediately after those first sittings that Mrs. Piper sit only with him and with those specified by him. For this work she was to receive a fee of $1,000 a year from the Society, an arrangement that continued for almost ten years. Hodgson kept in close touch with Mrs. Piper until he died.

His early remarks about her were non-committal, even though he could not conceal his growing wonder. In his first formal report, issued in 1891, he made these comments, which surprised his friends and encouraged the survivalists: "Mrs. Piper has given some sittings very recently which materially strengthen the evidence for the existence of some faculty that goes beyond thought transference from the sitters, and which certainly prima facie appears to render some form of the 'spiritistic' hypothesis more plausible."

About this time the A.S.P.R. went out of existence as an autonomous American organization and was absorbed by the S.P.R., London; but Hodgson, in America, continued to serve as Secretary and Research Officer. The President of the A.S.P.R. at that time was Professor S. P. Langley. The other officers included William James, Josiah Royce, Henry W. Bowditch, Joseph Jastrow, Charles C. Minot, S. Newcomb, Morton Prince, and William Watson. In 1897 Hodgson returned to England, where he still held a seat on the Council of the S.P.R., London, and served as editor of its *Proceedings*. He resigned the editorship, however, because he wanted to return to America. Nevertheless, he somehow found time to work closely with Frederic W. H. Myers, and after Myers' death completed his friend's classic work, *Human Personality and its Survival of Bodily Death*.

In his second report on Mrs. Piper, "A Further Record of Observations of Certain Phenomena of Trance," presented at a General

Meeting of the S.P.R., Hodgson expressed the celebrated opinion which has ever since placed him irrevocably on the side of the survivalists. "At the present time," he confessed—and it was the confession of a shocked man who had long resisted this discovery only because of his self-imposed, rigid scientific standards—"I cannot profess to have any doubt that the chief 'communicators' to whom I have referred in the foregoing pages are veritably the personages they claim to be, that they have survived the change we call death, and that they have directly communicated with us, whom we call living, through Mrs. Piper's organism."

After this, Hodgson, while continuing his studies of Mrs. Piper, was thoroughly convinced of his own survival after death. Some of his friends recalled his cheerful statement, "I can hardly wait to die." One distinguished student of psychic research, the late Sir Ernest Bennett, a Member of Parliament, remarked that Hodgson looked forward to death with "the joyful anticipation of Socrates that death might bring him into communication with the great men of thought and action who had passed before him."

HODGSON DIED SUDDENLY, just before Christmas in 1905, while playing handball at the Union Boat Club in Boston. In accordance with his wishes, there was no formal funeral, but there was a memorial gathering at the Boston Tavern Club, which he had joined shortly after coming to the United States, and where he was popular for his boyish banter, love of sports, and the simple living which delighted him. He rarely spoke of his psychic work there, he was always the enigmatic bachelor. (Long ago, in Australia, there had been a girl, a cousin, he might have married, but there had been differences regarding religious dogma—Hodgson had been born a Methodist—and that apparently was the only woman with whom there might have been an emotional relationship.) The Reverend George J. Prescott, who conducted the services at the Tavern Club, said later to the members, "I envied the man his place in your hearts. . . . You sent me away with a deeper appreciation of my fellow-men than I ever had before. It was an inspiration and a hope."

Professor James H. Hyslop, formerly Professor of Logic and

Ethics at Columbia University, continued working with Mrs. Piper after Hodgson's death. He was assisted for a short period by Hereward Carrington. The philosopher-psychologist Hyslop was the perfect man to succeed his good friend Hodgson. Both were cautious, even secretive, in the name of science. Both knew Mrs. Piper well, Hyslop having begun his experiments with her in 1899. When newspaper reporters persisted in getting some kind of a statement from Hyslop regarding the powers of the amazing Mrs. Piper, he replied, "I do not claim to demonstrate anything scientifically, not even the facts."

Two years after Hodgson died, I recalled Eleanor Sidgwick's memorial tribute to him, in which she said he was so independent that "he had an almost inconvenient dislike of following others." And then I also recalled reading somewhere that he showed his bold nonconformity by adopting at Cambridge an evening dress suit of brown broadcloth, instead of the ordinary black one.

Hodgson used this suit after death to identify himself, as a cousin of mine revealed unknowingly one day. Knowing of my work with Hyslop, she said to me while in trance, "Funny, I see a man here, but only half of him. He's standing right near you, but all I can see is a pair of legs in a pair of brown pants. Don't see who *he* is, only his trousers; but he says, 'Tell Hyslop he's a brick.' But I couldn't do that, I don't know him. I couldn't speak to him that way. It wouldn't be polite!"

That was the way my cousin, speaking in trance, put it. But I felt sure my boss wouldn't be offended and I told him the next day about the message to my cousin. Hyslop chuckled with pleasure and explained to me how cleverly this indicated the presence of his old friend, working within my family among people he had never met.

The Hodgson Fellowship in Psychical Research, established at Harvard University with funds contributed after his death by friends in England and the United States, enabled such men as William McDougall and Gardner Murphy to make psychic research a part of the curriculum of America's oldest university, for a short but memorable period. Along with this memorial, there is the permanent record of Hodgson's voluminous writings. The list of his contributions to the publications of the S.P.R. alone comprises two and a half closely

printed pages and covers a rich diversity of topics which range from "Secondary Personality Sittings With Eusapio Palladino" to "The Trance Phenomena of Mrs. Holland."

Hodgson must surely be ranked with the greatest figures of psychic research. He is one of the least known, and yet one of the most enduring, of that remarkable group of the late nineteenth and early twentieth century who gave psychic science the unshakable modern foundation, which has withstood such heavy assaults in recent years.

But Hodgson probably wrote the epitaph which he would have liked best. "In the macrocosm, so in the microcosm," he said in an article on ghosts and phantoms in the September 1890 issue of *The Arena,* "the view is widening all the way; the stars that once were interpreted as the gold-headed nails driven into the dome of the solid firmament, have now receded into the abysmal depths of the limitless evolving heaven; and no more than the earth is the center of the universe, may the tiny window of sense-consciousness through which we daily peep and pry, be the true measure of the soul of man."

The seventeenth century mathematician was a court favorite, as well as a frustrated, bewildered, and gullible alchemist

THE AMAZING DR. DEE

Julian Franklyn

THE first book printed in English wherein may be found the verbatim report of a series of seances, made its appearance in mid-Seventeenth Century. The title page, rather wordy in keeping with the custom of the period, and printed in red and black, reads, with minor abridgements, as follows:

"A true and faithful relation of what passed for many years between Dr. John Dee (a mathematician of great fame in Queen Elizabeth and King James their reigns) and some spirits tending, (had it succeeded) to a general alteration of most states and kingdoms in the World, out of the original copy, written with Dr. Dee's own hand: Kept in the Library of Sir Thomas Cotton Kt. Baronet, with a Preface confirming the reality (as to the point of spirits) of this relation: and showing several good uses that a sober Christian may make of all, by Meric Casaubon D.D. London. Printed by D. Maxwell, for T. Garthwait, and sold at the little North door of St. Pauls, and by other Stationers. 1659."

The copy in the Library of the British Museum was, in 1683 the property of William Shippen of Stockport who took the trouble of collating the book against the manuscript from which it had been printed. All through the four-hundred and ninety-four folio pages he has made manuscript notes and corrections, and he writes on one of the blank leaves at the beginning, "Dr. Meric Casaubon, the publisher of this book, was a Prebind of Canterbury (and sequestrated by the Godly Party from 1644 till the Restoration in 1660). He was a very learned and pious man but most lamentably troubled with Hypochondriac Melancholy. . . ."

It must have been Meric Casaubon's "Hypochondriac Melancholy" that influenced his clause in the title to the effect that Dee's spiritualism, had it succeeded, would have had repercussions on most States and Kingdoms in the world. Dee himself was not so ambitious, and there is nothing world-shaking in the record of his dealing with spirits.

We may safely take it that his quarter century of psychic research was genuine. Casaubon says, "I do not conclude that Mr. D was guilty of any imposture: he might do it through ignorance being cozened by others. I have heard he was an honest man, and died piously, and disclaimed to the very last that he did anything in the business other than *bona fide*." The theory that he acted simply as a spy for Queen Elizabeth I, and communicated his discoveries to her in a code through this work, originated in the jealous and vindicative reports of Lilly, a rival astrologer.

At any rate, those who wish to believe the theory have, so far, utterly failed to de-code the work, and those who know the cryptic pattern of our modern psychic research do not need to seek for, but are confronted by, parallels. What we cannot read in "A True Relation" relevant of Dee's character appears in his diary; from these two works the quotations used, hereunder, are taken, but the spelling has been modernized. Dee's intellectual bias manifested itself at an early age. In his Diary he says:

"In the years 1543, 1544, 1545, I was so vehemently bent to study, that for those years I did inviolably keep this order; only to sleep four hours every night; to allow to meat and drink (and some refreshing

after) two hours every day; and of the other eighteen hours all (except the time of going to and being at divine service) was spent in my studies and learning."

In 1544 he was only sixteen years of age. Fifty years later, Saturday 6 August 1597, he wrote: "This night I had the vision and show of many books in my dream, and among the rest was one great volume thick in large quarto, new printed, on the first page whereof, as a title in Great Letters, was printed NOTVS IN JUDAEA DEVAS. Many other books me thought I saw new-printed, of very strange arguments . . ." Such is the simple, almost infantile, "wish-fulfillment" dream of a scholar and a man of piety, for the title of the dreamed book is a reference to Psalm I-xxvi.

JOHN DEE, son of Rowland Dee by his wife Jane, daughter of William Wild, was born in London, July 13, 1527. Rowland Dee was gentleman server to King Henry VIII, but John was not left to lounge at Court seeking Royal favour. At the age of nine or ten he was put in the hands of Peter Wilegh, "a man of good conversation" who kept the Chantry School at Chelmsford in the County of Essex. Here, again to use his own words, he "was metely furnished with understanding of the Latin tongue," and in November 1542, at the age of fifteen years and four months he matriculated to St. John's College, Cambridge.

In 1546 he graduated B.A. and a few months later was selected as one of the Founder Fellows of Trinity College (where he was also appointed under-Reader in Greek) upon its being set-up by the King. Less than a year after his appointment he laid himself open to accusations of the Practice of Magic by constructing a mechanical device whereby, in the Greek play *Eirene* (Peace), by Aristophanes, which was performed by his students; the peasant, Trygaeus, was seen to ascend to the palace of Zeus in the sky.

Such a device would not, in the twentieth century, deceive a child, but in Dee's times the bulk of mankind was superstitious. In 1584, Reginald Scott was able to publish his *Discoverie of Witchcraft*. Before the Reformation, this would have been impossible, for the Church insisted that every Christian believed in Witchcraft and Demonology. Under Elizabeth I, persecution of witches was no longer a religious

duty, but belief lived on, and no one questioned there being a nether-world, populated by devils, demons and imps; and an over-world, in which moved benign spirits and angels of light. Seers, prophets, and miracle-working spiritual healers were assumed to be in communion with the latter; witches and magicians, including alchemists, with the former. The danger in occult practice was thought to be that of making the wrong connection and, in striving for guidance by good spirits, becoming possessed, and used by evil ones in disguise.

In 1547, Dee made his first journey overseas, to confer with the philosophers of the Dutch Universities. He returned the following year, with two globes presented to him by Gerard Mercator, and a ring-and-staff astronomer's instrument, the gift of Gemma Frisius. These he gave to Trinity College, took the degree of M.A., and in midsummer of the same year set out for the University of Louvaine. It has been assumed that at this already ancient seat of learning he qualified as a Doctor of Philosophy, but the fact is he never received the official title of "Doctor"—it was a kind of nickname, probably merely the product of alliteration.

Louvaine, at that time, was still talking of the marvels of Henricus Cornelius Agrippa, the alchemist, who in the service of Margaret of Austria, had performed his feats of magic and died there, only a dozen years before. Dee was doubtless duly impressed and, with the vanity of scholarship, germinated a resolution to excel in the same avenue of knowledge, but there is no record of his having commenced alchemical studies then. On the other hand, it seems clear that his whole time was absorbed with Greek and mathematics.

From Louvaine he journeyed to Paris, where, at the age of twenty-three, he made academical history by delivering a free course of lectures on Euclid. His audience was so large that students were forced to climb the building and listen at the windows. Paris University offered him a splendid post at a princely salary, but Dee was too loyal an Englishman to settle permanently in a strange land; he returned to England in 1551.

King Henry VIII's sickly son, Edward VI, still a boy and completing his studies under his tutor Sir Jon Cheke, accepted the dedication of two of Dee's books, and conferred upon him the benefit of an

ecclesiastical living, yet, Dee was neither a clergyman nor a schoolmaster; he declined to become Lecturer in Mathematics at Oxford and occupied himself in authorship. He produced, under the patronage of Jane, Duchess of Northumberland, in the year 1553 two books: *The Cause of Floods and Ebbs,* and *The Philosophical and Political Occasions and Names of the Heavenly Asterismes.*

In that year, Mary Tudor acceeded to the throne, and though Dee was invited to calculate her nativity, he was not greatly in her favour, for he was in correspondence with the young Princess Elizabeth; hence, an "informant", one Ferris, came forward with serious charges. Had Dee been in the Queen's good books, Ferris's complaint would have been ignored; "as it was he may have been paid to make the accusations. He entered a plea that Dee had, by magic, caused the death of one and the blindness of another of the Ferris children, and that the accused was further, by his occult powers, treasonably directing enchantment against the Queen.

Even Bloody Mary, who might have been glad enough to keep him under lock and key on suspicion, was not willing to let so learned a man go to the stake. His accusers should have been content with a charge of black magic against the Ferris family; they overplayed their hand by adding the plot against the Queen for good measure. He was cross-examined by the Secretary of State, then by the Privy Council, and finally brought to trial in the Court of the Star Chamber, where he was acquitted, and, by order of the Council, released. He was, however, further examined on suspicion of heresy by Bishop Bonner.

IN November 1555 his character was finally cleared of these charges, and in January 1556 he approached the Queen with *A Supplication for the Recovery and Preservation of Ancient Writers and Monuments.* He referred, courageously, to the dissolution of the monasteries and the distribution of, and wide destruction of, their records; he mentioned that the only copy of Cicero's *De Republica* had been burned at Canterbury, but the period was not propitious, nor was the Sovereign sympathetic; several destructive centuries were to pass before the State became "archives conscious." Dee's failure to found a National Library for, in effect, that was his plan, may have moved him to found a

private one—by the time Elizabeth I acceeded, he had a collection of 4,000 volumes, all of which he placed at the disposal of his friends and contemporaries.

Elizabeth knew her Dr. Dee—had it not been his correspondence with her that had, in the preceding reign, brought him so near to the stake? Dudley was, therefore, wise enough to choose Dee as the Astrologer to fix the date of the Coronation. If days influence events, Dee chose well. As soon as she was installed in her Palace of Whitehall, the Queen sent for Dee with the intention of showing him full Royal favour: "Where my brother [K. Ed. VI] gave him a crown, I will give him a noble," she said, but this fifty per cent increase did not come his way.

The shrewd men of Elizabeth's Court knew that the simple, unworldly philosopher would serve his Queen faithfully without fee, and that the money was better in their own pockets. They had no hesitation in calling him in when there was discovered in Lincoln's Inn Fields a waxen effigy of the Queen with a spike transfixing it. To deal with so dangerous an object then demanded the same kind of courage that is needed in our own time for bomb disposal. Dee did not hesitate, but he was wise enough to ask that Mr. Secretary Wilson might come and stand near him in order to bear witness that he employed "only Godly means."

This feat of counter-magic increased the Queen's confidence in him, and impressed her Courtiers. Dee was again offered an ecclesiastical living, but he required one without cure of souls—"a *cura animarium annexa* doth terrify me to deal with them. . . ." Instead of becoming a clergyman with the special duty of acting as Court Magician he went to Holland again in order to get printing done, and to buy up manuscripts of a scientific nature which might be found for sale.

In 1563 he wrote from Antwerp, asking for permission to remain abroad longer, so as to superintend his printing which was delayed. A year later, his *Monas Hieroglyphica* was ready: "Many University graduates of high degree, and other gentlemen, dispraised it because they understood it not; but Her Majesty graciously defended my credit in my absence beyond the Seas."

On his return in June, she sent for him "and vouchsafed to account herself my scholar in my book and said whereas I had perfixed . . . *Qui non intelligit, aut discat,* if I would disclose to her the secrets . . . she would *et discere et facere.* Whereupon her Majesty had a little perusion of the book with me, and in most heroicall and princelywise did comfort and encourage me in my studies . . ." These studies, and this Royal patronage had the effect of bringing Dee to public notice not, alas, as the highly efficient mathematician and astronomer that he actually was, but as a sorcer and magician—one having entered into a pact with Mephistopheles.

He defended himself eloquently in the preface of Euclid's *Elements*: "shall the folly of idiots and the malice of the scornful so much prevail that he who seeketh no worldly gain . . . be robbed and spoiled of his honest name and fame? . . . be condemned as a companion of Hell-hounds and a caller and conjuror of wicked damned spirits? How great is the blindness and boldness of the multitude in things above their capacity!"

DEE continued his literary activities, and presented to the Queen, in January 1568, a book he had edited and reprinted: *Propoedeumata Aphoristica.* This she accepted graciously and commanded an audience at 2 o'clock on February 16th. She wanted Dee's opinion of an alchemical secret which Nicholas Grundius, one time secretary to Charles V, was offering to reveal. Perhaps Dee advised her against it; all we know is "what was the hinderance of the perfecting of that purpose God knoweth best."

Dee, with a shrinking income and a growing library, took up residence with his mother at Mortlake, a village within easy reach by water of the Queen's favorite residences. In 1574, Dee wrote asking for Royal Letters Patent to permit him to search for buried treasure by means of divining rods. No reply is in the public records and to what extent he went dowsing for gold is unknown. There is among his manuscripts a diagram of ten places where it is presumed he employed his rods, there is also a record of his receiving royalties on a mine.

At the age of forty-eight (1575), Dee obtained the Queen's permission to marry, and a year later the Queen herself assuaged his

grief at the loss of his wife. Elizabeth was in the habit, when out riding in Richmond Park, of calling upon John Dee and asking to see his books and scientific instruments. On this particular occasion she arrived only a few hours after the funeral of young Mrs. Dee. The Queen diverted the philosopher by having him explain the virtues of a convex mirror in his possession, of viewing herself in it, and then laughing merrily at the distorted image.

The spirit of the age was distinctly maritime, and Dee wrote upon Navigation; further, he advocated the setting up of a "Petit Royal Navy" a sort of coastal defense force of men and ships "to be a comfort and a safeguard of the Realm". He went fully into detail, calculated the cost, and suggested a means of raising the annual expenditure by taxation. Hakluyt incorporated Dee's work in his own *Principal of Navigation* (1589).

Suddenly all Europe was thrown into a panic by the appearance of a blazing star. The death of princes, wars, famines, plagues and disasters were freely prophesied, but England's Elizabeth sent for Dr. Dee who for three whole days expounded the phenomenon. "Her Majesty took great pleasure to hear my opinion for the judgment of some had unduly bred great fear and doubt . . ." The following year, during November, he stayed at Windsor and evidently received the Queen's permission to remarry, a step which he took in February 1578. Jane Fromond was thirty years his junior but the marriage was a success.

THE CONTRADICTION in Dee's character is strongly emphasized by this evidence of his shrewdness in voluntarily relinquishing his human right to marry, and making of it a matter to be settled at the whim and fancy of his erratic Queen, in whose "princely countenance I never perceived frown towards me . . . to the joy and comfort of my true, faithful and loyal heart." Other courtiers, far more worldly-wise than Dr. Dee, had destroyed themselves by making this mistake, and these people would all have been able to see through Edward Kelley, who now comes on the scene, and on whom Dee pinned his faith.

Numbers of young men worked with Dee in the capacity of assistants. He gave them, in return for their services, a little cash and a colossal amount of enlightenment. The house at Mortlake, extended by

out-buildings, was a center of scientific research. In addition to his astronomy, his cartography, his mathematics and general scholarship, Dee was necessarily an astrologer and by his drawing of prophetical charts he earned a meagre living.

Near to his heart, and a source not of a minor trickle of income but of a major flood of expenditure, was his experimentation in Alchemistry. It ought perhaps to be categorically stated that this pursuit was not necessarily primarily concerned with the transmutation of metals, the discovery of the Philosopher's Stone nor the decoction of the Elixir of Life. Dee, for example, claimed to have discovered the alchemical secret "of the action of the elixir of salt. . . ."

The curious mixtures made by these experimenters and distilled in their retorts, frequently involved a real chemical action, and gasses were expelled. It seemed obvious, therefore, that minerals possessed "spirits" and that the overt manifestations were signs of arcane and occult activity. Psi phenomena were near at hand. Dee's first reference to a psychic experience occurs in his Diary under May 25, 1581: "I had sight in Christallo offered me and I saw". After that a form of poltergeist troubles Dee. There are knockings; fire breaks out, apparently without cause, in his housemaid's room; inarticulate voices are heard ten times, "like unto the screech of an owl, but more longly drawn, and more softly, as it were in my chamber".

THUS DID the great unknown present itself to Dee, whose inquiring mind could do nothing other than investigate, for which purpose he required yet another assistant—a medium. If there are diabolical powers that help to shape the fate of men, it was such a one that sent Edward Kelley to Dr. Dee at this critical juncture. During the night from the 8th to the 9th of March, 1582, there was an unusual effulgence of the Aurora: in the morning, the "medium" came. He presented himself under an assumed name, that of Edward Talbot, and sat with Dee to "gaze into my stone in a frame given to me by a friend". Kelley "settled himself to the Action, and on his knees at my desk [while] I, in my Oratory did pray and make motion to God", with the result that Uriel, the Spirit of light, appeared to the medium and held converse with him.

"Instructions" were received from the "spirits" on how to construct a seance table, the legs of which were to be insulated from the earth by its standing upon waxen seals. Kelley continued to "receive" the spirit messages and to "transmit" them, while Dee wrote them down. Kelley, who had concealed his own name lest his employer link it with the cropped ear he has earned for counterfeiting, was sharp enough not to keep his employer in a too subordinate capacity, and he encouraged Dee to ask questions of the "spirits." Among the remarks made is one worthy of the philosopher and suitable for contemporaneous consideration: "I do think you have no organs or instruments apt for voice, but are mere spiritual and nothing corporeal, but have the power and property from God to insinuate your message or meaning to ear, or eye so that man's imagination shall be that they hear and see your sensibly."

Dee, philosopher, mathematician and man of learning was, in all of life's aspects outside the sphere of scholarship, a simpleton with a childlike trustfulness. His character was not a complex one. Edward Kelley presents, however, a problem. His manifest dishonesty, leaving no room for speculation, has been the only aspect of his nature that has in the past, received emphasis; nevertheless, it seems that he had in addition to an amoral disregard of truth and virtue, some kind of psi sensitivity.

There is no need to accept, with the naive innocence of Dr. Dee, Kelley's "crystalomancy" as genuine ability to call upon another world; but it can hardly be denied that by use of the crystal he induced some form of parapsychological rapport between himself and Dee. If Kelley hypnotised Dee, then Dee unconsciously counter-influenced Kelley, for much of what was revealed by the "spirits" was manifestly part of the contents of Dee's own mind. It is, however, both foolish and unfair to appraise the genuineness of the phenomena in the light of present-day knowledge, for even when it seems clear enough that Kelley was consciously deceiving Dee, he may have been deceiving himself unconsciously.

IT IS REASONABLE to divide Kelley's revelations into three categories, but it is not reasonable to put them each in a watertight compartment—there must be some flux and flow between them. At the highest level he was reacting to some form of psi sensitivity—hypnosis, clairvoyance, thought transference, or some other touch by the thing unknown that makes the child turn poltergeist, and the preacher levitate: at the middle level he was himself victim of his own unconscious fraud; and at worst, a common cheat and "con man."

Kelley's ambassador from the spirit world was one Bobogel who, together with companions, appeared to Dee: "They that now come in are jolly fellows, all trimmed after the manner of the nobility nowadays, with gilt rapiers and curled hair, and they bragged up and down. Bobogel standeth in a black velvet coat and his hose; close round hose of velvet upperstock overlaid with gold lace. He hath a velvet hat-cap with a black feather in it, with a cape on one of his shoulders, his purse hanging at his neck and so put under his girdle. His beard long . . ."

Kelley had, at some time prior to his foisting himself off on Dee, obtained a manuscript and a phial of powder which was, he said, of boundless alchemical value, being nothing less than the means of transmutation. This much Kelley knew, as he had been an apothecary's assistant before he became a criminal. How he had obtained the script and the phial is unknown: he probably stole it, but rumor was rife that he and Dr. Dee together performed an act of necromancy and forced the thus resurrected dead to reveal the secret. The germ of this canard was the fact that Kelley had been arraigned at Walton-le-Dale, Lancaster, for exhuming a corpse to effect magical purposes.

The shrewd Kelley realized that his only chance of working out the formula and of applying the powder, was to attach himself to Dee, a man accepted widely as a great scholar, the Queen's favorite, and a very safe haven for the crop-eared felon. In the household at Mortlake he assumed super-piety and ultra-respectability. During a sitting, the Archangel Michael—none less—commanded him to marry Joan Cooper. Kelley virtuously replied that he had no natural inclination towards marriage, but at length he swore

on the Archangel's sword to obey him. So, in due course Mrs. Kelley took up her abode in the house at Mortlake. Joan was a decent honest girl of nineteen, eight years Kelley's junior, and far too good for him. This drastic action had, to some extent, been forced upon Kelley by Dr. Dee himself who was not wholly taken in by Kelley whom he detected in "abominable lies." Nevertheless, Dee, living in intellectual isolation, enjoyed the company of the "spirits" invoked by Kelley. To them he could confide that he was grieved at the Queen's reluctance to offend the Bishops by adopting Dee's calculations to reform the Julian Calendar, since the figures, which were checked and confirmed by every mathematician of the period, emphasized the accuracy of Pope Gregory XIII's scheme. In consequence, Britain had to wait another 200 years for calendar reform.

Kelley displayed temperament. When Dee yearned for intellectual discourse with the angels, the "skryer" was not in the right frame of mind and went out fishing, and in order to appease his master's avid appetite for knowledge, set Dee upon the task of puzzling out the alchemical formula; at this, the philosopher sat, growing poorer, maintaining his household and falling deeper into debt. Such was the state of affairs at Morlake in 1583 when the Polish Prince Aldelbert Laski Count Palatine of Siradia, came to England on a diplomatic visit to the Queen.

State visitors' requests are, within reason, invariably granted, and Count Laski expressed a desire to meet Dee, to see his world-famous library, and his curious mathematical and other scientific instruments. Therefore, on May 13, Dee was called to Court at Greenwich and introduced by the Earl of Leicester to the Polish Prince, who, five days later "came to me at Mortlake . . . at afternoon and tarried till supper."

Laski made several informal visits to Dee, but when accompanying the Queen from Greenwich to Sion House, he arrived in State. Leicester had ridden over the previous day to warn Dee that he'd have to provide dinner for the Royal Party. This command left poor Dr. Dee no alternative but to confess his penury and offer to sell his pewter to raise money, "whereupon Her Majesty sent

unto me very Royally, within one hour after, forty Angells of Gold," a sum equivalent to at least as many pounds sterling at today's value.

Dee's seance room was now dominated by a new spirit entity, Madimi, "a pretty girl of 7 to 9 years, attired in a gown of Sey, changeable green and red, with a train." She wore no head-covering as was fashionable for ladies, however old or young, at the period, but exposed her hair "rolled up before and hanging down very long behind." This child entered and left Dee's study by way of the book press. In the light of modern psychology this mode of entrance and exit is significant: Madimi was the product of Dee's vital intellectuality; she was even accomplished and obliging enough to learn Greek and Arabic, so that she could help Dee by carrying his questions to long-dead Greek philosophers and Arabian alchemists.

To this entertaining little sprite, Dee turned for information on how to use his contact with Laski "to God's likeing, my country's honour, and my own credit," and was told, "he shall want no direction in anything he desireth . . . whom God hath armed, no man can prevail against." It is noteworthy that "profit" did not occur to Dee!

Madimi was too wise and too learned for Kelley who, growing jealous of her accomplishments refused to converse with her in Greek since he himself could not recognize a single letter of its alphabet, whereupon she lapsed into Arabic, to Kelley's even greater annoyance.

ULTIMATELY, Laski proposed to take Dee and Kelley back to Poland with him: there, aided by magic, they would transmute base metal; and, sustained by the spirits, secure for Laski the Crown of Poland.

Dee made no business arrangements, left home, to which he expected to return in a year and a half, at 3 p.m. on Saturday, September 21, 1583, and travelled downstream to Gravesend where he and Mrs. Dee, Kelley and his wife, and Laski embarked for Holland.

Upon arrival at Laski, "a fair house by the Church" was put at their disposal and seances commenced at once. A new spirit character

appeared: one, Nalgave who "stood upon a round table of mother of pearl and revealed many cabalistic mysteries." His appearance was that of King Edward VI, "his hair hangeth down a quarter of the length of the cap, somewhat curling, and yellow."

Laski's pocket did not measure up to his title; he was heavily in debt, and could do nothing either with or for his English guests. He moved them, (or they moved themselves) to Cracow where Kelley, his mind centered on gold, grew tired of acting as medium in spirit messages of the intellectual type that pleased Dee.

While tension was at its height, Laski announced that he had arranged for Dee to accompany him on a visit to Emperor Rudolph II of Austria, but the journey does not seem to have taken place; perhaps the impecunious nobleman increased his credit by the prestige of his protegè without much effort. If so, it was but a temporary amelioration, for in August 1584, the journey was made to the city of alchemists—Prague.

Rudolph was, notwithstanding the Habsburg madness that for more than thirty years cut him off from life, a scholar, a collector, a reasonably good painter, a smith in wrought iron, an accomplished linguist, and an enthusiastic alchemist.

Kelley's feelings of inferiority induced in him superiority behavior of a type most distressing to Dee, and furthermore, dangerous. Kelley began to get drunk and to fight in public, so that the City Watch came to warn Dee, who was held responsible, to keep the peace.

Dee mishandled his contact with Rudolph. Instead of entertaining him with intellectual discourse, he babbled prophecies and spirit messages in which, no doubt, he had been unconsciously influenced by Kelley, who hungered for gold as avidly as Dee did for enlightenment. Kelley was at last aware that he would never get money from Laski, and now, seeing the chance of exploiting Rudolph evaporating, he "received" a spirit message that Dee should write to the Prince offering him the Philosopher's Stone. This epistle was duly penned by Dee, but to it there was no reply.

Dee and Kelley, mysterious foreigners, became unpopular in Prague and there were "demonstrations." Some of Dee's books were taken from him and burned. Pope Sixtus V issued an edit dated

May 29, 1586, banishing the magicians from Prague. Fortunately, Dee had at that time secured another patron, William Ursinus, Count Rosenberg, Viceroy of Bohemia, Knight of the Golden Fleece, who secured from the Emperor a sort of safe conduct for the Englishmen to reside freely in "towns, cities or castles."

It was in Count Rosenberg's Castle of Trebona, in southern Bohemia that Dee and his party found refuge and there they remained for two years. During this time Dee received an offer from the Emperor of Russia who believed that the secret of gold-making had at last been discovered, Kelley having convincingly "made a projection with his powder . . . upon an ounce and a quarter of mercury and produced an ounce of best gold." Kelley was constantly riding to Prague and meeting Laski, who, it is quite likely, was in on the gold-making trick!

Dee, in his sweet simplicity had no doubts in the matter of the transmutation and Kelley becomes "Dominus Kelley," with Dee as his disciple. The spirits now instructed Kelley that he and Dee must exchange wives, and when this little exchange was not immediately effected, they prophesied such dire calamities that at length Dee, in a state of abject terror, said, "Jane, I can see that there is no other remedy, but as hath been said of our cross-matching, so it needs must be done." She replied that she trusted God would turn her into a stone before such a thing should be done.

It is probable that Kelley, in spite of his bad character and his lack of harmony with his own wife, never really intended the exchange to take place, but used the idea as a means of securing a final break with Dee whose natural piety was a restraining influence. Kelley was anxious to sever the connection, not only that he might be free to cheat and prosper, but in order to avoid returning to England.

SO EVIL was the reputation of these two Englishmen on the Continent that Queen Elizabeth I had felt it necessary, as an act of diplomatic reassurance, to order them to return home, and when, on November 10, 1588, Dee wrote to his Queen a letter of congratulation on her Navy's defeat of the Spanish Armada, he had expressed himself and Kelley as ready to obey.

The matrimonial exchange tempest served to cover Kelley's departure, and he did not scruple to steal Dee's "shew-stone". For six years his conjuring trick of transmutation served: Rudolph even conferred upon him the title of *eques auratus*—equivalent to a Knighthood, and as Sir Edward Kelley he was afterwards known. Burleigh, the Queen's Treasurer, hearing of Sir Edward's miracles, invited him to return and enter the Queen's service, offering him "protection against all impediments," including old reports and past disgraces. (The cropped ears of a convicted felon were something of a drawback in later life!) Kelley, feeling that his own countrymen might believe in him from afar, but would quickly expose his imposture when near, preferred to remain in Bohemia where he believed himself safe.

In that belief, however, he was mistaken. An Italian nobleman on a visit to Rudolph, pointed out that Kelley brought his gold to court ready made; he did not set up his laboratory and manufacture it on the premises. Rudolph saw the logic in this and ordered Kelley to make gold before witnesses at Court. This order he repeated three times. Then, after much difficulty, for Sir Edward was experienced in fleeing from justice, arrested him and threw him into a dungeon at the Castle of Purglitog. Two and a half years later, Kelley was released but not to enjoy freedom for long. He was seized and again imprisoned. His end came as, on attempting to escape (not by a bullet in the back; that is essentially modern) he fell from an upper window.

DEE, who had blithely left his home at Mortlake on the assumption of his return in a year and a half, re-entered it, a disappointed and disillusioned man, six years later. His first act was to pay homage to the Queen who received him graciously and kindly. He then sadly investigated the destruction and damage to his library and instruments. His reputation for Satanic powers while abroad, having travelled back to England, had resulted in mob violence against his house at Mortlake.

Dispirited and pennyless, he was visited by Elizabeth: "December 4, the Queen's Majesty called for me at my door, circa 3½ a meridie [and] graciously putting down her mask did say with merry cheer "I thank thee, Dee, there was never promise made but were broken or

kept!" " This was of course the Queen's kindly rebuke to him, but she sent £50, and her permission for him to continue his alchemy. . . . But the only gold that Dee could make was the gleaming treasure of truth, so far as that nebulous quality can be related to the mind.

At the age of sixty-five he was constrained to address to the Queen a Petition for her help. This she took in her own hand and read to herself. (The custom of the period was for a secretary to read aloud the incoming correspondence.) She instantly ordered Sir John Wolley, Secretary for the Latin tongue, and Sir Thomas Gorges, Knight of the Wardrobe, to see into Dee's case. In less than a fortnight they were seated in his "late library room," while he recounted the record of his "studious life for the space of half a hundred years, now by God's favour fully spent."

On the report of her ambassadors, Elizabeth sent Dee a hundred marks, and Lady Howard sent "six old angells of gold". This sum paid his immediate debts and enabled him to take pupils in astrology and alchemy.

The certain knowledge that Dee was in the Queen's favor influenced the men about her to be cooperative. On January 3, 1594 Archbishop Whitgift wrote a recommendation to the Queen that she grant Dee a wardenship of Christ's College, Manchester, which was within her own gift. The Bill was prepared by John Herbert, Master of the Requests and the Queen inscribed her sign-manual on April 18. It passed the Signet on May 25; the Privy Seal on May 26, and on the 27th, the Great Seal. Dee concludes the passage in his diary by recording that he had to borrow £3.12.0. to defray the costs.

Dee disposed of his property at Mortlake and took up the post that should have sheltered his old age, but it was not to be. The Fellows of the College were petty minded and cantankerous: lawsuits were pending between them, the monetary, as well as the other affairs of the College were in sad disorder. Ultimately, Dee had to pay the debts out of his own still very slender resources. The settlement involved his selling his property and relinquishing his post.

THE LAST ENTRY in Dee's diary is dated April 6, 1601. This literary silence of so prolific a writer indicates the breaking of both his

spiritual and his physical strength. For Dee, the sun had indeed set. Great Elizabeth herself had passed into the land of the spirits, and her successor James Stuart, aptly nicknamed the "wisest fool in Christendom," was himself writing books against reform, and strengthening the hold of the old dark superstitions of witchcraft, sorcery, and all the rest of the powers on the human mind. He rekindled the fires that Elizabeth had quenched: what, then, save death at the stake, could Dee expect from him?

Dee, a believer in justice, and one having a simple trust in God, volunteered to go on trial, in order to clear his name of vulgar charges against him; but Cecil, in the service of James, was not the man he had been in the service of the late Queen. He, too, probably felt that at trial justice might prevail and so displease the King, hence he tossed the Petition aside with the casual remark, "Dee will soon be mad."

However, Dee defied Cecil. He did not go mad. Neither did he abandon his astrological practice, for only by casting horoscopes, and such like humble services to his neighbors, could he live. At length, satisfied that his own country did not value him he wrote to friends in Bohemia, and was preparing to make the long journey when, a few days after December 19, in the year 1608, in the eighty-first year of his age, he made the greater journey through the doorway called "death," into the New Knowledge that awaits us one and all.

Indians were moving around, apparently unaware of the storm; this seemed very strange, for usually thunder terrified them

WINDOWS TO THE PAST

Andrew Ballantine

PERHAPS those of us who are still very, very young may stand a chance of living until the day when we can tune in our television sets to witness, say, the signing of Magna Carta or the landing of the Pilgrim Fathers. Not a filmed or televised "documentary," but the real thing. Provided, that is, that in the meantime some electronics genius is quietly developing the late Thomas A. Edison's fanciful flight of a supersensitive radio. That great electrical wizard seems to have postulated that energy, like matter, is indestructible; that whatever vibrations of sound are loosed into the "psychic ether" continue to infinity and may sometimes become audible.

Edison, it is true, did not live to see his mind's invention take form, but now we have television; so, if the sounds of past events can, as Edison believed, be picked out of the ether, why not also the sights? Nature herself, from her own bag of tricks, has been known to provide a natural television screen on which astonished beholders have witnessed some scene from bygone days without the intervention of any sort of man-made mechanism.

Consider, for example, the experience of the late Cecil A. Denny, one of the original officers of the Northwest Mounted Police. The year was 1876. Psychical experiences were accounted as the phenomena of fevered imagination or just plain lying.

At the time of his Strange Adventure, as he calls it in his memoirs published in 1885, Denny was stationed at Fort Walsh on the Oldman River in that part of the Northwest Territories that is now the Province of Alberta. Deciding on a day's fishing and hunting, he set off with an Indian guide, a packhorse, and a collapsible boat in which he would return alone—or such was the intention—while guide and packhorse would go back to the Fort by the overland route.

How successful his day's holiday was from the sportsman's point of view he does not relate, but the attempt to return to Fort Walsh by boat was almost disastrous. While still far from the Fort he was overtaken by one of those wild storms not uncommon in the foothills of the Canadian Rockies. Came wind, came lightning and torrential rains while Denny, now left to his own resources, struggled with his frail boat over rapids and whirlpools and not infrequently found himself snagged on the stony, shallow river bed. But the promise of some shelter, however slight, appeared on the left bank where through the driving rain he had caught sight of a clump of trees.

As he stepped ashore he was delightedly surprised to hear above the continuous rumbling of thunder the sound of Indian music—the throbbing of drums and the weird wailing of native chants. Brushing aside the dripping branches bowed with the weight of rainwater, Denny forced a passage to the edge of the thicket. In the open country beyond there was an Indian encampment. Beyond that again a score of shaggy horses grazed quietly and apparently heedless of the tempest.

Equally indifferent were the men he could see moving about, most of them with nothing but the traditional breech clout between them and nakedness. Native women he noticed too, and little brown-bodied papooses playing among the gaudily decorated tepees. Denny's accustomed eye was glad to recognize these decorations as Cree in character, for the Crees were good friends of the Police.

Their complacency puzzled him, particularly the open doors of the wigwams; for he knew the superstitious Indian feared thunder and

usually hurried to draw these flaps at the first distant rumble. But what matter? He might be sure of some kind of rough hospitality—some food and an opportunity to dry his clothing. With this hope he emerged from the thicket, but only to be felled by a stroke of lightning which enveloped him in a flickering, crackling wrapper of bluish flame.

FOR MINUTES he lay unconscious. When he recovered and had looked dazedly around him he struggled to his feet and turned again toward the encampment. To his amazement all he now saw before him was the broad expanse of rain-drenched foothills. Gone were the tepees, the Indians, the horses; silenced were the voices and the drums.

Wearily, he climbed a low hillock overlooking the river and looked back, half expecting he might catch a glimpse of a band of Indians threading their serpentine way to a new hunting ground. But all he saw through the moist curtain of rain was the barren landscape studded with boulders and stunted trees. He saw a forked tongue of white flame strike the wood in which he had sheltered, and he heard the scream of splintering timber as lightning cleft a tree in twain. A terrified mother partridge darted from almost beneath his feet followed by her little brood; a hawk eagle hovered almost motionless over his head, seeming to calculate the moment at which to strike. But of other sentient life there was no sign.

"Pretty badly shaken," as Denny admits in *Riders of the Plain* (Calgary, 1885), he abandoned all idea of continuing the return journey by way of the river. Instead he plodded the 15-mile overland route on foot, more by guesswork and a sense of direction than by knowledge. It was close to midnight when he reached the Fort Walsh police post. There, after hanging his soaken clothes to dry, he turned, thoroughly exhausted, into bed.

Perhaps he was unwise in telling his brother officers of his experience. But although they tried to persuade him his imagination had played him tricks he had to admit that the more he thought of it the more elusive the explanation became. But Denny was one of those supposedly unfortunate people who are said to have been "born 30 years too soon." He was born in 1850—21 years before the Dialectical Society of London conducted the first half-incredulous inquiry into

psychical rumors—they were little more. In 1876, when he witnessed the apparition described here, the British Association for the Advancement of Science listened skeptically to a thesis on card identification by persons under hypnotic influence.

In 1885, when he published the first printed account of the "adventure" he confessed himself unable to explain, the American Society for Psychical Research was no more than a year old and still trying out its first faltering steps. In the meantime Denny's abandoned boat lay beached where he had left it in the uninhabited upper reaches of the Oldman River. As soon as police duties permitted he set out, again with packhorse and Indian guide, with the intention of retrieving it. Finding the exact spot presented little difficulty but as compared with the day he had been caught in the storm the landscape, bathed in the bright, warm sunshine, was almost unbelievably calm.

Before beginning the return journey, Denny and his guide went carefully over the ground where he had seen the Indians and their encampment. Here and there were a few rings of stones overgrown with grass, some bleached bones and two human skulls. In the course of conversation, as they moved about the campsite, the Indian told Denny how his grandfather had often told him of the massacre at this very spot of a band of Cree Indians by a murderous crew of Blackfeet, their traditional enemies. These, in a surprise attack, had murdered every man, woman and child, set the torch to every wigwam and made off as suddenly as they had appeared, taking with them weapons, travois, wheeled carts and anything that might come in useful, including horses. This, the Indian said, had happened when his grandfather was himself a small boy.

INSPECTOR DENNY'S unaccountable experience is not, of course, unfamiliar to today's student of psychical science. It is neither new nor unique. It shows many of the same characteristics as the classical Battle of Edge Hill between the army of King Charles I of England and Cromwell's Roundheads. A ghostly re-enactment of this, as bloody a fight as English historians have ever had to tell, was reported to have been witnessed by thousands of Northhamptonshire peasants, clergy and two officials commissioned by the King to verify the rumor.

The Edge Hill apparition differs from the one in Inspector Denny's experience in at least two respects. Whereas the Indian camp apparition, if the guide was correctly informed, followed the actual event by not less than two generations, the actual Battle of Edge Hill had been fought only two months before its spectral re-enactment.

From the standpoint of the psychical investigator, a defect in the Indian apparition is that Denny was the only witness, so that, without casting the least reflection on his probity, his story lacks the corroboration which today's investigator would require.

Nevertheless, both the story of the Battle of Edge Hill (printed and widely distributed in a 17th century broadside and reprinted by Lord Nugent a couple of centuries later) and that of Denny's Indians may well cause us to wonder whether, in Earth's silent places where there are no onlookers, the actors in some historic drama return to play again their roles in some tragedy or some comedy about which our history books have never told.

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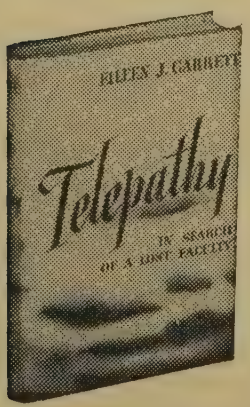

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C. D. Broad and Gardner Murphy, two distinguished scholars, are the subjects of new volumes reviewing their achievements

THE TIMELY TRIBUTES

A Book Review by Allan Angoff

THE PHILOSOPHY OF C. D. BROAD. Edited by Paul Arthur Schilpp. New York: Tudor Publishing Company. 1960. 866 *pp.* $12.50.

FESTSCHRIFT FOR GARDNER MURPHY. Edited by John G. Peatman and Eugene L. Hartley. New York: Harper and Brothers. 1960. 411 *pp.* $6.00.

THE most dedicated students of paranormal experience and the most distinguished investigators in the field will readily grant that psychic research has not yet achieved a secure scientific status. Despite almost a century of important and startling discoveries that have sometimes excited the keen attention and grudging respect of the older sciences, psychic research must still struggle for recognition. No true student of the paranormal is overly disturbed by this fact, and yet he will grant that he welcomes with special eagerness the eminent man or

woman, from whatever field, who comes to join the older veterans as a co-worker or even as a sympathetic observer. For such newcomers help improve the atmosphere in which the paranormal is studied. They encourage veteran workers by their positive approach and their disregard of the low esteem that attaches to these studies. Even the lay public is impressed with the better-known newcomers. That is why Richet and Lodge and Flammarion, Myers and Conan Doyle and Stewart Edward White, or Balfour and Maeterlinck and Upton Sinclair, loom so large in the history of modern psychic research.

But objections have often been raised to such men. Charles Richet was a medical man, and Sir Oliver Lodge was a physicist, F. W. H. Myers was a classical scholar, Balfour was a statesman, while Doyle and White and Sinclair were writers. They were all world-famous, to be sure, but they were really not scientists in a closely related field. Their enthusiasm and their fame and their eloquence were much more impressive than their knowledge of this strange area which had some kind of a relationship to philosophy and psychology and was at the same time all but disregarded by the leading philosophers and psychologists.

That is why William James, the philosopher-psychologist, and, later, William McDougall, the medical man and psychologist, scholars of unquestioned repute, startled the academic and scientific communities when they investigated in all seriousness and with the meticulous methods they had long applied in their own fields, the claims of mediums and others so long disregarded by their colleagues. Many of William James' associates could scarcely believe him when he urged, successfully, that the behavior of Mrs. Leonore Piper, the Boston medium, should be studied. And there are a good number of psychologists today, respected members of the American Psychological Association, who remember William McDougall well and speak sadly of the great fall of this once-distinguished figure, who "got lost," in his later years, in the morass of psychic phenomena. But the fact is that James and McDougall and a few others not as eminent contributed immensely to the steadily improving atmosphere in which such studies are carried on today. They have been succeeded by several men of almost equal fame, and two of the most distinguished now living are unquestionably

C. D. Broad and Gardner Murphy. Broad has long been ranked with Bertrand Russell and G. E. Moore as one of the greatest figures in modern British philosophy; and Gardner Murphy is usually regarded as one of the handful of American psychologists with an international reputation.

THESE TWO VOLUMES are deserved tributes to both men by former colleagues and students who discuss many aspects of their work, including their important studies of psychic phenomena. The much more ambitious volume on Broad, edited by Professor Schilpp of Northwestern University, begins with Broad's own *Autobiography,* and is followed by twenty-one essays by European and American scholars on all aspects of Broad's work. Those in turn are followed by a final long essay contributed by Broad himself and entitled *A Reply To My Critics.* This latter essay, which is actually a book-length contribution of 120 pages, is a point-by-point analysis, in Broad's inimitably forthright and engaging style, of every important criticism leveled at his work. The final section of the book is devoted to a 20-page bibliography of Broad's work compiled by Dr. C. Lewy of Cambridge University, and a full index, both of which are extremely useful tools for so massive and definitive a work on one of the great minds of the day.

The essays in the volume give some idea of the vast scope of Broad's work over the past half century. They include technical discussions of his views on religion, on the empirical elements in his philosophy, his theories of induction and probability, on time, on sensa, ethical terms, moral philosophy, determinism and free will, and on his theory of emotions. C. J. Ducasse contributes "Broad on the Relevance of Psychical Research to Philosophy"; A. G. N. Flew discusses his views on supernormal precognition; and H. H. Price's essay is entitled "The Nature and Status of Sense Data in Broad's Epistemology."

Charlie Dunbar Broad is still active today at seventy-three as a Fellow of Trinity College, Cambridge. He has lectured at and been honored by universities all over the world, including the University of California and the University of Michigan. He was president of the Society for Psychic Research, London, in 1935 and 1936, and continues active in that organization. He joined the society in 1920 be-

cause of his long interest in paranormal phenomena, but he says of that interest, "I do not know when or how it began, but I can hardly remember a time when it did not exist." He grants, however, that some interest in psychic matters was perhaps awakened by his avid reading of the *Review of Reviews,* the famous magazine owned and edited by the equally famous W. T. Stead, a most unorthodox man who believed in spiritualism and did not hesitate to include many articles on it and related unorthodoxies in the magazine. Broad remarks that his colleagues at Cambridge, for whom he had the highest regard as philosophers, had no interest whatever in even the most elemental psychic research. He continued, nevertheless, to write and to lecture on the relationship between psychic and philosophic studies. Looking back, he remarks, "I have also expressed my astonishment at the contented ignorance and indifference of most contemporary Western philosophers in a matter which should deeply concern anyone who presumes to express reasoned opinions on the nature and status of man, on the limits and conditions of human cognition, on the inter-relations of the mental and material aspects of the world. . . ."

BROAD'S GREAT INTEREST in psychic phenomena, has led him to many sittings with reputable mediums. He has remarked, however, that "in none of them have I received any communication which seemed to require for its explanation anything more than telepathic awareness by the medium of some of my own cognitive and emotional states. . . . The vast majority of statements made did not seem to require even that explanation; they were to all appearance just irrelevant twaddle. I have never witnessed any ostensibly supernormal physical phenomena under satisfactory conditions."

It should be noted here that Broad attracted considerable attention at one time by trying to work out a relationship between mathematical and physical concepts and the qualities of color, taste, and smell. He has also excited very great interest, as Whately Carrington pointed out in *Thought Transference* (Creative Age, 1946), by suggesting that there may be two dimensions of time, with one of them time in the past and the other dimension time in the future, with the capacity for both in the mind of the same person. There could be the

beginnings of an explanation here for precognition, although it must be emphasized that the ingeniousness of the concept has aroused admiration for Broad's originality rather than acceptance of it. But more important here, this type of thinking reveals why this philosopher has been such an encouraging influence in psychic research. He has, himself, explained his interest in psychic matters in this manner. "I feel in my bones that the orthodox scientific account of man as an undesigned calculating machine, and on non-human nature as a wider mechanism which turns out such machines among its other products, is fantastic nonsense, which no one in his senses could believe unless he kept it in a water-tight compartment away from his other experiences and beliefs. . . ."

It is precisely here that Broad calls to mind Gardner Murphy's equally forthright criticism of the orthodox scientific method which strikes the English philosopher as so limited. Vast areas of human experience remain unexplored, remarks Murphy in *Human Potentialities* (Basic Books, 1958), referring particularly to the paranormal, but "the fear of losing caste among positivist scientists has interfered on a huge scale, even with the investigation of relatively simple and objective laboratory phenomena . . . now available in the field of parapsychology, meeting the challenge for strict experimental control. A huge range of empirical materials is now at hand. . . . Science can seldom afford to be afraid of investigation, and in this instance, as in so many others in the history of science, fear can actually cripple the types of investigation which could give true unity and resolution to what have proved otherwise to be insoluable problems."

Although the *Festschrift For Gardner Murphy,* edited by two of his former students now on the faculty of the City College of New York, is not the ambitious work that the volume on Broad is, it nevertheless contains sufficient material to show the astonishing breadth of Murphy's activities. Trained at Yale, Columbia, and Harvard, for many years a member of the faculties of Columbia and the City College of New York, a representative of and investigator for UNESCO who studied social tensions in India, research director of the American Society for Psychical Research, and today Director of Research at the Menninger Foundation, Topeka, Kansas, Murphy is a great American

psychologist who long ago understood that the discoveries in his original field of study must for their greatest effectiveness be applied to the problems of human personality and human society.

THIS VOLUME honoring Murphy on his sixty-fifth birthday consists of twenty-six essays on studies which Murphy influenced directly or indirectly. Dr. Murphy's interest in parapsychology goes back to the 1920's, when he wrote the introduction to the first American edition of Renée Warcollier's *Telepathy*. Therefore, the book includes two essays discussing more recent advances in the same area: Gertrude Schmeidler's "Changing Field Relations of an ESP Experiment," and Joseph L. Woodruff's "The Effect on ESP Scoring of an Unexpected Qualitative Change in ESP Material." The other essays include a "profile" of Murphy, which is hardly adequate and does not begin to reveal the man himself or the size and importance of his contributions; "Inhibition, Disinhibition, and the Percepts of Psychologists," by Solomon Diamond; essays on recognition of words, on subliminal activation, Gestalt psychology, interpersonal attraction, physician-patient relationships, and what is perhaps the best essay in the book, Otto Klineberg's "Some Footnotes to the Psychology of Intergroup Relations."

Except for the Klineberg essay and perhaps one or two others, the contributions are probably much more technical than they need be, and replete—often unnecessarily—with the the special jargon that will discourage laymen and specialists from other fields from attempting to get at the sound ideas they surely have for those who are not professional psychologists and sociologists. After all, Gardner Murphy, the man honored in the book, has investigated water dowsing, has discussed human personality, social psychology, abnormal psychology, in a manner that has held the attention of laymen and professionals from other fields. (The volume on Broad's philosophy, incidentally, with its numerous diagrams and involved discussion of fine philosophical points somehow holds the non-specialist reader in a manner which this Murphy volume fails to do. Possibly this is due to the book's having been sponsored by the publisher's textbook-conscious College Department rather than its more famed trade department.)

Otto Klineberg reminds both the layman and the specialist that "the application of psychology to the understanding and improvement of relations between ethnic groups, both within and across national lines, has been one of Gardner Murphy's continuing concerns. He has repeatedly reminded us of our responsibilities as psychologists and as human beings in connection with these fundamental issues, and has himself aided us greatly in seeing the potentialities as well as the limitations of our role. His own approach to a divided humanity has been characterized by a rare combination of compassion and wisdom, tempered by an awarness of how much we still have to learn if we are to reduce the tensions that affect relationships among groups of men."

Despite their common interest in psychic science, Broad and Murphy have for the most part worked in widely separated areas of human thought. But the striking measure of their greatness is their supreme interest in the future development of man as an enlightened social animal. "I will let the physical scientists, biological scientists, and engineers describe man's future *environment*. My own hope here is to show what kind of things we shall need to know if we are to realize our potentialities as *human beings*," writes Murphy in *Human Potentialities*. "Others can write a great deal better about the architecture of the future, atomic energy and its uses, automation, basic English, city planning, cybernetics, diplomacy, the increasing life span, interplanetary travel, the managerial revolution, Marxism, the new pharmacology, psychoanalysis, world government, and a thousand other valuable themes. It is the human stuff that concerns me. I have believed for a long time that human nature is a reciprocity of what is inside the skin and what is outside; that it is definitely not 'rolled up inside us' but our way of being one with our fellows and our world. . . ."

SIMILARLY, Broad at the end of the long tribute to him in the larger volume, says he does not believe that the influence of psychologists, geneticists, and other scientists will prove more effective in fashioning a better society than have been soldiers, politicians, trade unionists, lawyers, industrialists. "It seems to me plainer than ever," he writes, "that *unless* the emotional makeup of the average citizen throughout the world be profoundly modified in certain ways in the fairly near

future, the chance of humanity escaping a large-scale disaster is very slender."

Thus, Murphy speaks of "the human stuff" and Broad of "the emotional makeup," and it is undoubtedly their working for those objectives which have made these two men so alert to the possibilities in psychic research—despite the reservations their long training in established scientific method undoubtedly gave them. The discoveries in paranormal behavior mean a great deal more to them than the obvious and spectacular which attracts so many shallow people and sometimes dismays so many true workers in the field. The studies of telepathy and related phenomena may yet yield discoveries which will modify man himself and open up the enormous human potential which can avert the disaster Broad fears. This is the long view of all great thinkers, and it is the ultimate view of those who today are ever encouraging new research and new discoveries in parapsychology.

Readers who are looking for an introduction to parapsychology may turn to this volume which "does not patronize its facts"

NEW PRIMER OF PSYCHIC RESEARCH

A Book Review by Sherman Yellen

THE CHALLENGE OF PSYCHICAL RESEARCH. A Primer of Parapsychology. By Gardner Murphy. New York: Harper & Brothers. 1961.

SINCE the founding of the Society for Psychical Research, London, in 1882, the scientific efforts of psychic researchers have been challenged by outstanding advocates of material science. Born in the era when material science held almost total domination over the cultural scene, scientific psychic research has had to defend itself, from infancy, against the onslaughts of the strong and outspoken scientific majority —which refused to have its favorite premises and prejudices overturned by the unruly new scientific movement. But psychic research was uniquely fortunate in the advocates who rose to its defense. Early in its history, many of the world's outstanding psychologists, such as William James and William McDougall undertook an active role in championing its activities, while such distinguished scientists as Alexis Carrel and Julian Huxley have risen to its defense in later days.

Heading the list of contemporary scientists, whose interest has been seriously engaged by psychic research, is Dr. Gardner Murphy.

As Director of Research at the Menninger Foundation, Topeka, Kansas, Dr. Murphy has established, over the years, a reputation as one of America's leading psychologists. In the tradition of James, he has seriously involved himself with the progress of psychic research. He has made available to parapsychology, a mind disciplined by orthodox psychological science, yet one which has ever been open to new ideas, fresh solutions to ancient questions, and unrestricted research into the nature of man. Unlike many of his associates in modern psychology, Dr. Murphy has never regarded the subject of the human mind and its experience as a closed one, with all the information in and only its evaluation now possible.

Believing that both the professional scientist and the thoughtful lay reader are in need of a book which clearly outlines and defines the accomplishments and challenge of psychical research, Dr. Murphy has prepared the present volume, which he calls a "primer" of parapsychology. This book, however, cannot be classified so easily. In no sense is it an effort to present the ABC's of parapsychology. Dr. Murphy makes no concession to the cult of simplification which has overtaken much scientific writing for the general reader. No attempt has been made to shape difficult theories into simple facts; or, conversely, simple facts into difficult theories. He writes for the busy, modern reader, but he views this reader as a man or woman who wishes to be informed about the documented examples of the kind of data available. This he presents in relation to a few main problems, selecting from the classics and the near classics of the field. Everything is directed toward solving the problem of "what can a thoughtful reader think about these things." In Dr. Murphy's own words, "My aim is to offer exhibits of data; to suggest ways in which the data may be interpreted; and to leave the reader to decide—or to decide not to decide: It could be; but who knows? He may decide: Here is an area that calls for more and better research. Or he may take one of the many directions which it is not my task—or my privilege—to forsee."

With this aim in mind, Dr. Murphy begins his book with "spontaneous cases," the records of psychic phenomena which early psychic researchers investigated and recorded. He presents a classical case of a precognitive dream, one involving a wife who awoke from sleep, feel-

ing that she had suffered a sharp blow on the mouth. Her husband, she subsequently discovers, has been involved in a boating accident at that same time: the tiller of his boat, swinging in the wind, has struck his mouth, cutting his lip badly.

HOW MAY ONE regard this kind of psychic material? First, Dr. Murphy deals with the possibility of "coincidence" which the opponents of psychic phenomena often use as the patent remedy to cure all the ills which psychic phenomena inflicts upon their tightly organized view of the universe. Dr. Murphy presents the method for disposing of the coincidental explanation—showing how statistics, record keeping, and psychology may work together in evaluating spontaneous material. He comments about the many cases of apparitions of the dying, suggesting that those cases in which the person was ill or in danger (and such illness and danger known to the percipient) could be excluded from the psychic literature, and still a great body of material pointing to more than coincidence or assimilated information would remain.

In reviewing modern techniques for evaluating spontaneous phenomena, he presents the methods of corroboration pursued by the American Society for Psychical Research—which probes possible inconsistencies found within reported spontaneous cases. This method, which serves to separate the wheat from the chaff, by removing the possibility of coincidence, unconscious assimilation of information and telepathic factors, has provided us with a hard-core of spontaneous case material whose authenticity may be respected by the most skeptical reader.

As a psychologist, Dr. Murphy is particularly interested in the dream literature of psychic research. He provides the reader with one of the most fascinating examples of a spontaneous case, involving a dream of alleged supernormal content. This is the dream of Dr. Walter Franklin Prince, historian, clergyman, and later, psychical researcher, recorded in the *Journal* of the ASPR in 1923. This case bears upon the two most important questions confronting the scientist who examines psychic dream material: "Is there a distinctive quality of paranormal dreams, marking them off from ordinary dreams?" and, "Can dreams predict the future?"

The dream of Dr. Prince, summarized below, was told to two persons before the coinciding event occurred. It was recorded and corroborated shortly after. On the night of November 27, 1917, Dr. Prince dreamed that he had in his hands, a printed order (in red ink) for the execution of the bearer, a woman. The woman appeared to have voluntarily brought the order; expressing a willingness to die, if Dr. Prince would only hold her *hand*. He described her appearance clearly; "she was slender of the willowy type, had blonde hair, small girlish features, and was rather pretty. She sat down to die without any appearance of reluctance, seeming fully calm and resigned. . . . I should have thought her age to be about 35. Then the light went out and it was dark. I could not tell how she was put to death, but soon I felt her hand grip mine (*my hand*) and I knew the deed was done." Dr. Prince, had, nevertheless, the distinct impression that her head was severed from her body. In recording this dream, he emphasized the word "hand" remembering his horror when "the fingers of my other *hand* were caught in her teeth and the mouth opened and shut several times as the teeth refastened on my *hand,* and I was filled with horror of the thought of a severed but still living head. Here the dream faded out." Dr. Prince asserted that it was almost unknown to him to have unpleasant dreams which cast a shadow over the following day, but in this instance he could not lose the sense of horror at his dream's content. He could find no physical explanation for the experience.

Two days later, the Long Island newspapers carried a story about a Mrs. Leonard Hand, who deliberately placed her head in front of the wheels of a train that had stopped at Hollis, Long Island, so that she would be decapitated. Letters, found in her handbag, contained her writings on her belief that her head and body could retain life if separated. Friends indicated that she had been insane for several years. In practically all particulars of appearance and event, the suicide of Mrs. Hand and Dr. Prince's dream were identical. Dr. Murphy turns to the work of psychoanalysis for a further understanding of such telepathic dream content, pointing to the work of Dr. Jan Ehrenwald (*New Dimensions of Deep Analysis*), in which a striking number of cases go beyond coincidence, and more important, offer clues to a new understanding of interpersonal relations.

AS A SCIENTIST, Dr. Murphy is particularly drawn to the laboratory experiments in telepathy; those which can be examined under controlled conditions. He is particularly impressed by the work of Whately Carington, the Cambridge University Scholar, who surmounted the "boredom" problem of ESP tests using a limited number of cards, by developing a book test, whereby a dictionary was opened at random; the first "drawable" word was selected, a drawing of the word made and then locked in a closed room—while, by prearrangement with subjects scattered over a large area of Great Britain, he asked that subjects draw the impression received and send it to him during a certain period.

The rarity of the object drawn is taken into account in evaluating the results; the correct result of a "cat" could be given less credit than the correct reception of an "albatross." Dr. Murphy notes that although Carington successfully repeated his experiments on numerous occasions, a statistically significant result has yet to be obtained, since a satisfactory repetition of the Carington experiments with large quantities of material has still to be reported.

Dr. Murphy goes on to present a brief history and analysis of the work accomplished by J. G. Pratt and J. B. Rhine in experimental telepathy and the problems occasioned by the remarkably successful results of their experiments; the accusations of collusion among the experimenters; and the charge that the results were engineered. As a personal friend of the principals in these experiments, Dr. Murphy vouches for their integrity, but, unlike many defenders of experimental parapsychology, he will not let the issue be resolved by acting as a character witness. He states: "We must, in raising these questions [of collusion and manipulation], remind ourselves that no scientists claiming unusual results can ever ask for immunity from these charges. If independent repetition were available for most of the major effects, the difficulty would not arise. The fact is that experiments of the Pearce-Pratt type are among those which a number of people have tried to repeat, with occasional but infrequent confirmation."

"We are then left with a typical human problem in probabilities: on the one hand, the enormous antecedent improbability of extrasensory phenomena; on the other hand, the extraordinary amount of

certainty one must have in supposedly established "laws of nature" to accuse serious human beings of rampant and egregious fraud."

Dr. Murphy cites the numerous parallel experiments in other parapsychology laboratories which support the Duke University data, and concludes that "the credibility of the . . . results will depend largely upon the breadth of one's familiarity with other similar investigations."

The work of Gertrude Schmeidler, Margaret Anderson, Rhea White, and others in the field of ESP and its relation to personality, is also reviewed in detail by Dr. Murphy. Although he calls for more research in this area, Dr. Murphy credits this experimental work with a high level of consistency. Correspondence between Dr. Murphy and Margaret Anderson is included in this chapter, offering the reader an excellent example of the high standards which Dr. Murphy applies to the work involved, and of the attempt to meet those standards on the part of experimenters.

Precognition—the correct impression of future events by means other than inference from present evidence—is carefully reviewed in Dr. Murphy's examination of the Soal-Goldney tests of Basil Shackleton. It is a close, careful review of the evidence developed from these tests and will, for many readers, give new insights into the painstaking procedure of such experiments. The philosophic aspects of precognition are not ignored; Dr. Murphy states the problem as he has confronted it over the years: "To make contact with that which does not exist is, for many, a contradiction in terms, a philosophical paradox, an outrage; or even may be held to come under the category of 'impossibility' in a way which is not quite true of telepathy or clairvoyance. I can only state the position to which my own mind has been worn smooth, like a stone worn smooth by the waters over many decades, namely to the effect that where evidence groups itself according to some inner logic of its own, the organized resistance of philosophical rejection is gradually worn down. The question is to let nature group data for us as she likes, however absurd the conclusions in terms of the thought patterns of a given era."

Here, as elsewhere, Dr. Murphy suggests that we must not be constricted by the scientific and philosophic ideas of our own time, but attempt the broader view—one which is not preoccupied with current

concepts of intellectual respectability. He looks toward the philosophy and physics of the future, which may help to explain how one might cut through the future into a situation not yet existent.

IN THE following chapter, Dr. Murphy deals with the subject of psychokinesis—considering the claims of the reality of physical phenomena—the reported influence of psychological processes, such as the will, upon *physical* events, without utilization of the nervous or muscular systems. The Duke University experiments in PK are examined at length and the problems involved are developed. Dr. Murphy realizes that the acceptance of PK phenomena is partly a matter of "personal metaphysics;" that many of the experiments are "rough and ready" affairs in view of the unknown imperfections of dice used in the experiments. He concludes, however, that "It appears to be no longer a defensible gesture to say: let us wait and see if there is anything here . . . as . . . independent experimental lines of work, all well safeguarded, tend to support his [Dr. Rhine's] conclusions. I do not say that the conclusions are established; indeed, this is a word I do not use. I say that the thoughtful modern reader can no longer slam the door on psychokinesis."

If this volume dealt with no other subject than survival evidence, it would still be important reading for that "modern reader" to whom Dr. Murphy addresses his comments. For Dr. Murphy, who has engaged in much personal investigation of the survival questions (see his Three Papers on the Survival Problem" published by the A.S.P.R.) has selected the most representative cases from the survival literature of psychic research for inclusion in this chapter. It is an editorial task which he has met successfully; reintroducing the classical cases of the rich, late 19th century, involving the most eminent researchers and mediums of the period. The cross-correspondence tests involving Mrs. Piper, the medium, and Mrs. A. W. Verrall and her daughter, Helen de G. Verrall, the automatist, in the opening years of this century (*Hope, Star & Browning Case*) are given full attention. The work of F.W.H. Myers, Sir Oliver Lodge, and others, is presented, not for its "pioneer" or "antiquarian" value but because of its importance to our present-day knowledge of this subject. Though conceding that the

great age of mediums and of survival research has passed, Dr. Murphy will not relegate this work to the past, believing that it is today as important to psychic research as Darwin is to natural science and Palestrina is to music. Some may question the parallels drawn here—for unlike the fields of music and natural science, survival research has not continued with vigor and "new greatness" in our time. The analogy, however, is appropriate when one accepts Dr. Murphy's underlying premise; that great work of the past remains great, despite the new cultural factors of the present.

The great value of this book does not only lie in Dr. Murphy's willingness to synthesize what is known about psychic phenomena, and to suggest areas for future research—it is also found in the limits which he draws upon areas of research. Astrology, Numerology, Theosophy, all come under his scrutiny, and he dismisses them as areas of proper study because of their efforts to incorporate their beliefs into an all inclusive metaphysical philosophy. The "wonders" of fire-walking, levitation, stigmati and other marvels of psychic lore, are regarded as either improperly observed or more suited in the scrutiny of psychology. The author is careful to note that the role of psychic research is most appropriate when the alleged phenomena fall beyond the orthodox scientific disciplines. Above all, he stresses the need for psychic research to remain flexible, avoiding the kind of cultism that is known both to philosophy and science, which may inhibit the experimental thrust toward possible knowledge of what is presently unknown.

Many readers, who come to this book expecting to find Dr. Gardner Murphy, the internationally respected psychologist, will perhaps be disappointed. One must keep in mind, that this is a primer of psychical research. The mind of the depth psychologist is often hidden beneath the mind of the laboratory researcher presenting a review of known material. But this does not mean that the book is barren of new insights; on the contrary, it is remarkable for its "freshness"—it's ability to look with an unjaundiced eye upon material which has been worked over for many years. But perhaps the most important aspect of this book is that it presents the scientific approach to psychical research through a generous mind. Generous, in as much as Dr. Murphy,

the unchallenged master of his material, can select from a vast area of personal knowledge; and more generous because—without straining for impartiality—Dr. Murphy believes in his subject enough to present its weaknesses as well as its strengths. He refuses to patronize either the reader or the facts. He is not concerned with making friends for psychical research; rather, he seeks only to take the intelligent, modern reader on a well directed tour of the still, uncharted regions of the mind.

DEVELOPMENT OF THE PERCEPTUAL WORLD. By Charles M. Solley and Gardner Murphy. New York: Basic Books. 1960. 353 *pp.* $6.50.

THE psychology of human perception has generally taken little notice of the dynamics of personality. In traditional schools of psychology, perception has often been regarded as an island in the human being, unconnected to those other factors in personality, like drives, wishes, motivation, learning, etc. In this book, Dr. Solley and Dr. Murphy describe the research and theory of what is called the "new look" at perception, attempting to connect this isolated island with the total human personality; particularly with its dynamic and memory aspects.

There are especially interesting areas of research on perception presented here. These might also prove to be fruitful for parallel research in extrasensory perception. Such attempts have been made by several workers in the field who have been associated with Dr. Murphy. This type of research, however, has never been done on a systematic basis. Nevertheless, clinical impressions of researchers, as well as spontaneous cases reported, clearly indicate that the motivational forces in personality are of great importance to ESP. This new book offers a wealth of ideas drawn from perceptual research which could be utilized in ESP experiments.

One great difficulty encountered in ESP research has been that we have not found a way to improve subjects' performances; on the contrary, we often find that a decline sets in with continued performance. Thus, the research and theories presented by the authors on perceptual learning might prove helpful in eliminating the decline dilemma in ESP experiments. With the publication of this book, parapsychologists are presented with a gold mine of ideas which might help us to overcome the dull and dry testing procedures for ESP in current use.

KARLIS OSIS

The ideas of one of the century's most daring psychologists, are reflected in an anthology of his parapsychological work

WILLIAM JAMES REVISITED

A Book Review by Martin Ebon

WILLIAM JAMES ON PSYCHICAL RESEARCH. Compiled and Edited by Gardner Murphy and Robert O. Ballou. New York: The Viking Press. 1960. 339 *pp.* $6.00.

THIS collection of William James' writings comes in time to serve a new generation of researchers and writers. Hardly a week goes by without a letter from a student to the Parapsychology Foundation or the Parapsychology Laboratory, Duke University, stating that a paper or thesis on psychical research is in preparation. The availability of much research material in the volumes of the journals of the American and British societies of psychical research is not enough. Compilations such as this are the surest way to bring the most significant works of psychical research pioneers to the attention of current inquirers.

Dr. Murphy, ably assisted by Mr. Ballou, has managed in this volume to select with care, while giving the reader a detailed and understanding description of William James' role in the history of psychical research. Dr. Murphy describes the family setting that formed the background to James' quest. He notes: "The relationship of

mental healing, psychical research and religion in James' attitude is a clear one. To him all of them were similar manifestations of vastly important and little-understood areas of the human mind and its powers, and which must be investigated by any means at our disposal if progress in understanding was to be achieved. To his own consideration of all of them he brought his pragmatic philosophy and his insistence that a thing was not necessarily untrue simply because it conflicted with known science.

"In psychic phenomena *something* happened even though it was still impossible to know exactly what or how. In mental healing there were undeniably cases in which healing occurred through the influence of mind over matter—whether the mind was that of the healer or the patient. In religion there were realities to the one who experienced it deeply which bore fruits in a good and satisfying life. . . ."

The volume is divided into seven sections. These deal with early impressions gathered by James; then several general statements are reprinted, including letters exchanged with F. W. H. Myers and others; a third section deals with clairvoyance, levitation and "the astral body;" succeeding chapters deal with relations to Mrs. Piper, the well-known medium, and with Mr. Myers; the concluding segments are devoted to "Religion and the Problems of the Soul and Immortality." In all, this material is as representative of William James' writings in the field of psychic research as can be achieved in a volume of standard size.

The briefer essays and letters carry with them a lively feeling of the writer's personality—more so than the formal papers, or than his best known work, *Varieties of Religious Experience*. It is not an exaggeration to say that James was an intellectual adventurer, in the best sense of the word; he commanded, as Dr. Murphy puts it, "a disciplined, unfearing, ever inquiring, nervously revolving and reconsidering mind." He also writes: "James had to ask the impertinent question: But do all the evidences of psychopathology, dissociation, double personality, the evidence of the weak, the sick, the frightened, the undisciplined, the savage, that you find in the deeper strata of the mind, really turn out, my dear friend, to come from the same region in which the sublime, the ecstatic, the potentially immortal reside?" Dr. Murphy, with excellent turn of phrase, concludes that "it was as if James, like

Icarus, tried to fly but got nearer to the sun than any empiricist can safely allow himself, and fell back to earth."

DR. MURPHY'S observations, introducing and concluding the volume, are based on material previously published in journals of the psychic research societies. They are therefore somewhat confined in scope. What is missing is a coming-to-grips with the psychological uniqueness of James; what is missing is Murphy the brilliant psychologist applying the tools of modern psychology to the man whose work is here anthologized; what is missing is a daring dive into the pool of James' soul, his illnesses, his bewilderments, depressions and his daring. This Murphy fails to do, as he has so far failed to do in virtually all his writings concerned with psychical research. It is as if the twains of psychology and parapsychology are not permitted to meet.

There may be, it is hoped—and Dr. Murphy has suggested this in print—a forthcoming magnum opus, a sort of "Gardner Murphy on Psychical Research." And when this volume is prepared, it may be hoped that it will not be another anthology, but a fresh, long view of psychical research through the eyes of one of the world's most distinguished psychologists—a work that does not give two hoots what anyone else thinks or says, a work of scientific insight and intellectual frankness; it will be something worth waiting for.

SELF DISCIPLINE IN HEALING

A Book Review by Eileen J. Garrett

THE MIND IN HEALING. By Rolf Alexander. New York: E. P. Dutton & Company. 1955. 191pp. $3.00.

DR. Rolf Alexander has been many men in his lifetime. In later years he has temporarily deviated from his work in medicine to study the human will, which he claims is able to produce a direct and measureable effect upon a "target" distant from the brain. He devised the "cloud dispersal effect" to demonstrate this—in countries as widely separated as Mexico, Great Britain, and the United States. His latest book *The Mind In Healing* is a medical examination of both the stress of every day living and the way to help release the self from conflict. In his introduction, Dr. Alexander tells us it is not the body diseases from which one suffers that are the killers, but the mental processes where mind and matter meet, often in conflict. The author reveals that the pituitary gland, one of the masters of body chemistry, cannot tell the difference between subconscious stress states caused by worry and exasperation, and those caused by the purely physical ills and injuries.

I am in agreement that here, indeed, is the "Maginot Line" of the body where mental and physical come together to deal with daily

stress, happiness, emotion or anger. It is to these areas of mind and matter that the author directs some serious thought. He tells us that the seat of the pituitary is a chemical station where mental states and images find themselves becoming gradually translated into energy. Here, Dr. Alexander refers to the work of Dr. Hans Selye at the University of Montreal's Institute of Experimental Medicine and Surgery. Dr. Selye has demonstrated that there is a powerful defense mechanism within all of us—to be used for our protection. *The Mind In Healing,* concerned with healing the self, contains a system of exercises and techniques that have already been tried with remarkable success.

These findings are not offered lightly. Dr. Alexander has witnessed principles and techniques that have been used for centuries by the Maoris and Polynesians. The author was born in New Zealand, where, as a boy playing with his primitive playmates, he had occasion to observe and absorb the language and philosophy of the people. He is equally at home with the European schools of psychology that have emerged under the direction of J. M. Charcot, Sigmund Freud, A. A. Brill, and C. G. Jung; and he has observed and studied these various techniques.

The Mind In Healing is a simple but practical book which offers a method of self-discipline to escape the tensions and anxieties that beset our modern way of life.

The students were fascinated by the idea of a feathered crown, and this led them to recount their own psychic experiences

PSYCHIC RESEARCH IN HIGH SCHOOL

John D. Engle, Jr.

AS a teacher of high school literature, I recently had the opportunity to do a bit of psychic research. It all started when we were on a unit titled "My Thinking and the Future World." One of the stories in the unit was "Report on the Barnhouse Effect" by Kurt Vonnegut, Jr.

Professor Barnhouse, the hero of the story, discovered a secret power of the mind which he called psycho-dynamism. This power enabled him to destroy anything he wished. When he decided to put an end to war by using his power to destroy all arms and military establishments, he suddenly found, paradoxically, that he had become Public Enemy Number One.

I was worried to find that most of my students did not have enough imagination to accept that story even as a piece of fiction. Their criticism was that such a story was ridiculous. They could not seriously consider anything that violated any of their so-called rules of common sense or that went against their set of standardized beliefs. On

the other hand, I knew that as teenagers they were much closer to the psychic aspects of human existence than most adults. I felt that all of them had been exposed in some way to at least one element of beyondness and that all they needed was to be reminded of it.

In order to carry out the reminding process, I asked them this question: "Are there occurances in human life that cannot be adequately explained by our present methods of logic and human reasoning?" This question caused some differences of opinion and started a discussion. Some of the students answered the question with a definite "No." Others said, "Yes," and some said, "Maybe." A few still maintained that the question, like the story, was ridiculous. There were also some who wanted to know what I meant by "unexplainable occurances."

A few students were certain they already knew what I meant, and they were ready to prove it with examples from nature and animal life, such as the homing and migratory instincts of birds and butterflies and the proven cases of dogs and cats that have found their way home across hundreds of miles. When one student pointed out that these were animal reactions and had no relation to human life, another student responded by relating all he had read about psychic studies and ESP experiments.

In an effort to offer tangible evidence of what I considered an unexplainable occurance, I asked the students if they would like me to bring my "feather crown" to show to them the next day. This brought on more questions, such as, "What on earth is a feather crown?" I asked if anyone in the class had ever seen or heard of a feather crown. The class was surprised when one girl said she not only had seen one, but that she had one at home. This intensified the curiosity, but the questions remained unanswered. The girl found difficulty in describing the feather crown, but she said the crown had been found in the pillow of an uncle who had died and that members of her family believed it was a message from God, indicating that the soul of her uncle had gone to paradise.

Now the other students were intensely interested. They wanted me to tell them about what I had referred to as "my feather crown." Therefore, I related the story that has fascinated me ever since I was

a child. I told them the story of Eva Quicksall, the beautiful girl who died of tuberculosis in the small hill village of Yocum, Kentucky, in 1926 and how the feather crown was discovered when the feathers in Eva's pillow were emptied for burning.

"What does a feather crown look like?" the students wanted to know.

Like the student, I found it hard to describe, but I tried. "The feather crown," I explained, "is an object formed, by some mysterious process, completely of feathers with their quill ends hidden one beneath the other. The one I have is about six inches thick. Each feather is curved and arranged to fit in a symmetrical fashion. On the outside rim the larger feathers form a smooth, unbroken surface. In the center of each flat side the smaller feathers are arranged in a whorl similar to the formation that water takes in a whirlpool or the way hair is arranged on the crown of the human head. The feathers are not loose but are held firmly together by some unexplainable force. The people of the hills believe the feather crown is a token sent from God to let Eva Quicksall's friends and family know that her soul had gone to be with Him." I went on to explain how I came into possession of the crown when the remainder of the Quicksall family moved away years later.

THE NEXT DAY the two feather crowns were put on display beneath a bulletin board of material showing evidence of various psychic phenomena. In a few days the subject had become so popular that students and teachers from all over the school were coming into the classroom to look at the feather crowns and give their own ideas as to how they were formed. As a result, my classes became quite responsive and enthusiastic on the subject, though many of them were still skeptical toward anything bordering on the supernatural.

I decided that, while interest was high, I would ask the students for themes on some unexplainable experience they had had or that they had heard about from someone they knew well. I told them that most people have such experiences at one time or another, but usually attribute them to chance or coincidence. I explained that although such experiences sometimes occur in relation to death or other tragedy,

they may just as easily occur in the course of our every-day lives. Although there are usually a number of groans and objections when a written assignment is made, this time there were no complaints at all.

In order to show the students that I wanted to do my share, I promised to find out if any of the faculty members could recall such experiences.

On the day the assignments were due, the students were eager to share their contributions with one another. I offer just a few of them here as evidence in support of two important facts: 1. Psychic or other unexplainable experiences are much more common than most people realize or care to admit. 2. Exploration of this usually neglected area of thought leads to increased interest on the part of young people and causes them to be less restricted and inhibited in their thinking. Although I have abbreviated and edited these themes, I have made an effort to reproduce the original manner of expression in the student's own words so that some element of the wonder and surprise of youth may be retained.

The first experience was related by a boy who titled his theme, "My One Step Beyond." This is what he wrote:

"It happened almost a year ago. I was in the basement of my house reading a magazine. I knew that my grandmother was very ill in a hospital. For no reason at all I put down the magazine and started to think about her. Then I had a mental picture of a doctor standing over my grandmother's bed. He felt her pulse, then covered her with a sheet and said, 'She's gone.'

"I shook my head and thought that I must have fallen asleep and dreamed the whole thing. I picked up my magazine and began reading again. I hadn't read more than five or six words when the telephone rang. I heard my mother answer, but I couldn't understand what she was saying. She finished the call and walked into the living room. She said something to my father and my sister. My sister began crying and my father walked to his bedroom.

"I came up the stairs expecting the worst. I said to mom, 'What's up?' Maybe I was hoping I was wrong.

"She sadly replied, 'Grandma just died.'

"I said, 'I know,' and walked away."

Next, a girl read a similar experience in which premonition of death is involved. Her composition was titled, "A Peculiar Feeling," and contained these passages:

"A feeling of expectancy—the expectancy of something tragic—shadowed the lives of my mother and me. We didn't know what was going to happen, when it was going to happen, or even to whom it was going to happen. We only knew there would be some tragic event.

"I went to visit my girl friend during the middle of this particular week. As we left her house to go swimming, the telephone rang. At first we were going to act as if we hadn't heard it, but on second thought I told my friend it might be my mother and to please answer it. It wasn't my mother, but it was my sister. Walking tc take the receiver, I sensed that something was wrong.

"I had difficulty understanding my sister because she was crying so hard. She finally got me to understand that my cousin had been killed in a car wreck.

"Was this peculiar feeling of expectancy something supernatural? Had we subconsciously known what was going to happen? Maybe some day we'll know the answer."

SINCE THE FIRST two themes had been related to death, I asked that all others on death or tragedy be read next. I list them here as they were given:

Waiting For Death

"Not long ago, Betty, a very close friend of mine, had a phone call from another friend who had had a frightening dream in which Betty had died of an incurable disease. In the dream she had even attended Betty's funeral.

"Betty, who was in too good a mood to let a dream bother her, decided that it was just another bad dream and let it go at that. A few weeks later, however, she awoke with a pain in her left ear. When she returned from the doctor, she told me that she had cancer.

"Betty had several operations in hopes that the spread of the disease could be stopped, but it did not. She died just recently, and her friend's dream became a reality."

My Aunt's Dream

About six years ago my aunt had a dream in which her husband was killed by a train. At first this didn't seem odd because she had had this kind of dream before and had paid little attention to it.

"Soon after this dream, however, her husband was driving home from work and his truck stalled on a railroad track. The signal lights weren't working, and he didn't know where he was until it was too late. He was killed instantly."

A Supernatural Experience

"My grandmother is a person who almost always receives a warning of some kind before a death or sickness occurs in her family. It isn't always a dream. Sometimes she has a premonition. She will say, 'I feel like something is going to happen.' She is usually right.

"I remember one very definite experience. She dreamed one night that her father died. The next day she received a telephone call telling her he had passed away."

My Psychic Experience

"When I was a freshman, I took a sudden interest in cancer. I read everything I could find on it, and even used it as the subject for one of my term papers. I had some strange desire to learn as much as possible about it, and I came to know the subject well.

"Last month I learned that my uncle was seriously ill, but the doctors did not quite know what was wrong. As soon as I heard this, I told my mother that I thought he had cancer. I had an intense feeling about it, and I knew I was right. A week later the doctors confirmed that my uncle had incurable cancer."

Coincidence or Fate

"Last November a girl's mother died who was close to our family. This made me stop to think about death and life. When I think a lot about something, I usually dream about it. Friday night I had a dream that my parents were in an auto accident. I awoke about 9:00 Saturday morning to find that my father had fallen from the engine of a train and had been sent to the hospital with a broken neck."

The Costly Mistake

"Coming home from a golf course where I had been caddying, I decided to let my dog out of the yard so he could run. Suddenly the thought struck me that if he were turned free something dreadful would happen. Failing to heed this warning, I let him go anyway and started preparing my lunch. Just then I heard a screech of brakes and a loud thud. Racing outside, I discovered that my dog had been struck by a car. Even though his life was saved, this incident proved to be a costly and a near fatal accident."

Other themes were unrelated to death or tragedy, but nevertheless dealt with experiences that had their psychic overtones. Here are a few of them:

Strange and Mysterious

"In early February I took a government examination for an amateur radio license. There was no way of knowing whether or not I had passed the examination other than waiting for either the license or a notification of failure to arrive in the mail. Each day on the way home from school I looked forward to finding the license waiting for me. On some days I really expected it to be there; on others I was prepared for disappointment. Finally there came a day when my feeling that the license had arrived was stronger than it had ever been before. I was *certain* that it had arrived. When I reached home, I found that, indeed, it had."

The Phone Call

"I had just been to a wedding, and my father was taking me to the reception when something told me to go home. As I walked in the door of my home, I had a definite feeling of anticipation. I knew that the phone was going to ring and that it would be my boy friend calling me long distance from Texas. Just as my father pulled out of our driveway, the phone rang. Sure enough, it was my boy friend from Texas."

Psychic Assistance

"As I was preparing myself to take a geometry test, I ran across a problem which I felt was very suitable for this particular test. As a

result, I studied the problem for quite a while, hoping to find valuable principles of the chapter through it. On the day of the test when the examination was illustrated on the blackboard, I was surprised to find that the exact figures, statistics and all, were identical to the ones I had studied so thoroughly. Of course I made an A. Was all this only coincidence?"

Clairvoyance After Dinner

"This has happened to me numerous times, but I can remember one occasion with clarity. We had guests for dinner, and the after-dinner chit-chat was just beginning. Suddenly I had the strangest feeling that I had been there before. Immediately the entire conversation came to mind, not only what had already been said but what was to come. For several minutes I could anticipate each speaker's comments. Then my power of clairvoyance disappeared as rapidly as it had come. The periodic returning of such incidents assures me there is a great field ahead of us in the unexplored area of the human mind."

OF COURSE, there were other themes, but I think these are sufficient to show the frequency of such experiences and the change in attitude of students who find how interesting the subject can be.

I was reminded of my promise to check on the psychic experiences of the other teachers. Fortunately, I had found a rich field for exploration there. Already an unusual personal experience had been related to me by Mrs. Boyers Clark, the biology teacher. In addition, one of the history teachers told me of a similar unexplainable incident that took place in his family.

My students wanted to hear both stories. I told them the history teacher's story first:

"On a spring evening in 1943, Charlie and Addie Thompson of Spring City, Utah, had just sat down for a few minutes of talking and reading. As usual, the first topic of conversation was their son, Richard, who was with the Air Force somewhere in Europe. Suddenly, for no apparent reason, the Thompson's lights went off, the electric clock stopped, and the picture of their son Richard crashed to the floor.

"About a week later a message from the War Department informed them that Richard had been killed while piloting a B-17 in his

first air raid over Berlin. As far as the Thompsons could determine, their son had died at the same time the lights went off, the clock stopped, and the picture fell from the wall."

Since Mrs. Clark's story was really a first hand account of two experiences and since she had gone more into detail, I was able to present it to the class with some hint of the drama it contained when she told it to me. Here it is from the viewpoint of Mrs. Clark's husband:

" 'Dad! Dad!'

"The call awoke Mr. Clark from a deep sleep. He looked at the luminous dial on the bedside clock. What could Morgan be wanting at five o'clock in the morning?

"He glanced at his sleeping wife and wondered why the call had not awakened her. She was a lighter sleeper than he, but she did not stir. There was only one explanation. It must have been a dream. With this self-assurance he decided to go back to sleep.

"But just as he closed his eyes, the call came again, 'Dad! Dad! Please come here! I need you!'

"This time there was such an urgency in his son's voice that Mr. Clark leaped from the bed and rushed across the hall to Morgan's room. He had opened the door before it dawned on him that this was February 2, 1951, and that Morgan was in Korea. Still the call had been so clear, so distinct, and so insistent that he was compelled to walk to Morgan's bed to reassure himself. The bed lay empty and silent in the gray half-light of approaching dawn. While looking at it, Mr. Clark suddenly was aware of an emptiness and an unexplainable sense of loss. Puzzled and dejected, he walked slowly back to his room where he found his wife still asleep.

"Just as he put out his hand to awaken her, he remembered an event that had occurred years before when Morgan was only three. While he had been away at work, Mrs. Clark had put Morgan and a younger son to bed and was washing dishes. Suddenly she had a feeling that something terrible would happen to the children if she didn't go to them at once. Without really knowing why, she stopped in the middle of the dish she was washing and ran upstairs to the children's room. She was horrified to find that the window she had left open was

closed and the gas had been turned on by one of the children. She had arrived just in time to save the children from being overcome by the fumes.

"This recollection, which came in a sudden clear focus upon the screen of Mr. Clark's mind, disturbed him even more. For a moment he thought he should let his wife remain asleep. Instead, he yielded to a compulsion to wake her. When he had told her what had happened, there was little more that either of them could say. They lived through the next few days and nights in a kind of silent, dreadful expectancy.

"At the end of the following week they received the telegram from the War Department informing them of Morgan's death in a Korean battle. The Clark's were certain that Morgan had been killed at the same time Mr. Clark had been awakened by his son's urgent call."

AT THE END of this high school venture into the psychic area of human existence, I was pleased to find there were fewer closed minds than at the beginning of the unit. Even the most skeptical students were now open-minded enough to consider the possibility of such things as Professor Barnhouse's power of psycho-dynamism, as described in Mr. Vonnegut's "Report on the Barnhouse Effect." There was even some evidence of original thinking, and an occasional leaning toward the fascinating concept that in the realm of thought and spirit there are no impossibilities.

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"THRESHOLD OF MYSTERY"

"We know almost nothing about deep sleep. The dreams that fill it are as a general rule dreams that we forget. Sometimes, however, we recall some part of them. And then we experience a strange, untranslatable feeling. It seems that we are returning from afar—from far away in space and time. These are doubtless very old scenes from our youth or childhood which in our dreams we revive in all their details, changed somewhat by the emotional coloring that we have added but impregnated with a youthful, childlike freshness that we might seek in vain to re-create during the waking state. . . .

"It is toward deep sleep that psychologists should direct their efforts in order not only to study the mechanism of the unconscious memory but also to examine the more mysterious phenomena relating to "psychical research." I dare not make any pronouncements on these phenomena, but I cannot refrain from attaching some importance to the data collected systematically and with tireless zeal by the Society for Psychical Research. If telepathy influences our dreams, it probably has the best opportunity to manifest itself during very deep sleep. But, I repeat, I can make no pronouncement on this point. I have gone forward with you as far as possible. I stop at the threshold of the mystery. To explore the innermost depths of the unconscious, to work in what I have called earlier the substratum of consciousness, that will be the main task of psychology in the century that is dawning. I do not doubt that wonderful discoveries await it there, as important perhaps as were in the preceding centuries the discoveries in the physical and natural sciences. That, at any rate, is the promise that I make, the wish that I express in closing."

March 26, 1901 *Henri Bergson*

(From "The World of Dreams." New York: Philosophical Library, 1958)

The Biology of the Spirit

Condensation of the Book

Edmund W. Sinnott

From *The Biology of the Spirit* by Edmund W. Sinnott. Copyright 1955 by Edmund W. Sinnott. Reprinted by permission of the Viking Press, Inc.

WHEN Edmund W. Sinnott's work The Biology of the Spirit *was published, the New York Times Book Review spoke of it as "a brilliantly developed thesis, adventurous but tightly held within the bounds of scientific discipline." Brand Blanshard, Professor of Philosophy at Yale University, called it "more than a lucid and timely book; it conducts an argument for a sound and immensely important conclusion through a set of biological paces that are fascinating in themselves."*

Dr. Sinnott's approach to the nature of man suggests an underlying and fundamental unity within all forms of life. He regards life as a series of stages and goal-seekings, in keeping with what is known of basic growth and evolutionary patterns. Life's unity, according to Dr. Sinnott, enables man to direct the course of his actions, and this keeps him from being helplessly driven by external forces.

To this view of purposefulness of life, the author brings the qualifications of a distinguished botanist. He has taught at Harvard and Columbia Universities, as well as at Yale, where he is dean emeritus of the Graduate School.

Dr. Sinnott is a member of the National Academy of Sciences, the American Philosophical Society and the Botanical Society of America. He is the author of many papers on anatomy and inheritance in higher plants. Among his works are Two Roads to Truth, *published in 1953 and* Matter, Mind and Man, *in 1957.*

THE ANCIENT QUESTION as to what the relation is between the material part of man—his body—and the immaterial portion that inhabits it—his mind or his soul—has long perplexed philosophers. The traditional belief that these are separate things and that man's immaterial part is real and is independent of his body was shaken by the theory of evolution. It has been even more gravely challenged by the conclusions of modern biology, which regards the body as a material mechanism obeying the laws of chemistry and physics and requiring no psychical element to direct it. These changed conceptions of man's nature have seriously disturbed his ideas about himself and his relation to the universe, and underlie much of the confusion and pessimism in the world today. Despite the difficulty of harmonizing the modern concept with the ancient views of man, a person who is blessed with healthy common sense, though necessarily accepting the obvious findings of the sciences, cannot help feeling that the philosophical conclusions so often drawn from them are too extreme. Just as the direct creation of Adam from the dust seems to him incredible, so does the idea that he himself is a machine, an automation, without freedom, responsibility, or worth. If this is the inevitable conclusion to be drawn from modern science, he is likely to say, then science has not gone far enough along the road to a final understanding of what man really is.

The thoughtful scientist is troubled too. He is less likely now than he was a few decades ago to be dogmatic in his philosophy. The physicist and the astronomer have found that matter and energy and the universe are far more complex things than their Victorian forebears believed was possible. The proofs that matter is at last no more than energy, that the atom's once reassuring solidity is an illusion, that space is curved, and that the universe is expanding, are sobering. Even the biologist, who has but recently learned to use the physical sciences for the interpretation of his own field and has found them of enormous value there, is beginning to suspect that life may be more than the simple series of metabolic processes that some enthusiastic physiologists of fifty years ago believed it was. He still assumes that a living being is a system that follows the laws of physics and chemistry evident in a lifeless mechanism, but

he is not so confident that a living cell will soon be synthesized.

We are standing at an impasse in our basic philosophy and seem to be faced with the necessity of a choice between the physical and the spiritual side of man as the final reality. I am persuaded that a satisfying harmony between these two attitudes, seemingly so diverse, is *not* impossible, and that it will be derived from illuminating insights into the nature of life that have not yet been sufficiently explored. From that very science that was responsible for the disruption of the old conceptions of man's nature will come, I am bold enough to suggest, a means of restoring many of them within the framework of an orderly intellectual system. To accomplish this may seem an impossible task, but man's unhappy dualism is proving so disastrous, both for individuals and in its impact on society, that a study of every possible means of bringing together the two sides of him is worth investigating. It is to such an exploration that the following pages are directed.

Biological Goals

THE MOST DIFFICULT problem in biology is to discover how, in the development of an animal or plant, a precisely formed body and not a formless mass is produced.

Every living thing is an organized system, well named an "organism." Each part and function is so closely correlated with the rest that the whole develops in an orderly fashion toward the growth of the mature individual, as if to a "goal." If normal development is blocked or interrupted, the organism, particularly in its early stages and in lower types, shows a strong tendency to restore lost parts and regulate its growth processes so that it still can reach its goal. Each part, at least potentially, is able to restore the whole, so that the whole seems to be immanent in all its parts.

This integrating and directive control that guides bodily growth and development resembles in so many ways the equally unexplained directiveness of man's behavior which we call mental or psychic activity as to suggest the exciting possibility that these two may be expressions of the same underlying biological process. To understand

one may help us understand the other. An exploration of this possibility perhaps can assist the philosopher to resolve the perplexing dualism of man's nature by interpreting its basis in biological terms and thus bringing into harmony the two aspects of him that now appear to be so very different.

The general facts of organization and self-regulation in the growth and development of plants and animals underlie the hypothesis to be presented here and must be understood if one is to follow the argument. The examples are taken both from normal developmental histories and from those where there has been experimental interference with the normal course.

A pine tree is as simple an organism as one can find, save among the lowliest of living things. It has few of the complexities of an animal—no stomach, no heart, no muscles, no nerves, no sense organs, and certainly no brain. Despite this, it possesses a bodily pattern to which it stubbornly adheres, maltreat it as you will. There is something within it that makes it a pine tree, and not only a pine tree but a white pine or a pitch pine or a red pine.

How stoutly a pine tree resists attempts to modify its form, and how persistently it restores its normal pattern when this has been altered, may easily be shown by some simple experiments that anyone can make.

If you truss the branches up in various ways to prevent them from reaching their normal position you will see how persistently the tree acts—I almost said "tries"!—to restore its characteristic pattern.

Just as the pine sapling persistently restores its normal growth pattern when this is forcibly altered by the constraint of bonds, so do most plants tend to restore their patterns when they are more drastically changed by the removal of parts. Somehow, we repeat, there must be present in the plant's living stuff, immanent in all its parts, something that represents the natural configuration of the whole, as a norm to which its growth conforms, a "goal" toward which development is invariably directed. This insistent fact confronts us everywhere in biology.

In the days when almost every housewife had geraniums blossoming through the winter in her south windows, there came a time

in spring when the plants had grown too tall and "leggy" to be attractive any longer. Before throwing them out she started from them a new lot of "slips." The process is simple and familiar. With a sharp knife the tip of a vigorous young shoot was cut off, and the base of it was put into water or damp sand. Before many days a circle of root tips began to appear at the cut end, and soon a well-rooted plant became established. A dozen such might thus be grown from one old plant—its offspring by this simple, sexless process of vegetative propagation. Each was a piece of its parent, removed from a subordinate position as part of a larger whole and now, by the growth of its own roots, restoring a new whole again.

Of all the kinds of plants that gardeners grow, the common gourd has the widest range of variation. Its species is called *Cucurbita Pepo* by the botanist. To this protean group belong the summer squashes—crook-necks, straight-necks, patty-pans, cymlings, cocozelles, and all the rest; the pumpkins, big and little; and a host of ornamental gourds of almost every color, size, and form.

Though fruit shapes in these species are widely varied, the fruits on a single plant are all alike. Each shape is inherited, determined by specific genetic factors. This does not strike us as remarkable, for we are used to the fact that like begets like and would be shocked indeed to find a pumpkin vine that bore tomatoes. And yet the production of a gourd fruit, true at every stage to its hereditary type, is one of those biological marvels that become the more remarkable as we study them closely.

The young fruit starts out as a minute mass of cells about as big as the point of a pin, the ovary rudiment of a tiny female flower. From this comes the fully developed ovary, and then, after fertilization occurs, the fruit itself. Something far more subtle than mere expansion is happening here. At every step of its development the growing structure has a precise form, and this form slowly changes as it grows. All types are alike at the very earliest stage—tiny, rounded groups of cells, and that is all. Very soon, when the young ovary is barely visible to the naked eye, its characteristic shape begins to be distinguishable. Each particular shape is the result of growth that is more rapid in certain dimensions than in others. The patient

observer who carefully measures the growing ovaries at successive stages can see this form unfolding day by day. It changes slowly but steadily until maturity.

In different types this pattern changes differently. Though in the bottle gourd width grows more rapidly than length, in the club type the reverse is true, so that here the fruit becomes not fatter as it grows but more elongated. In the rounded ones both dimensions grow at about the same rates, and here the early form persists with little change until the end.

Nature's Orderly Control

TO ME there are few sights in nature more impressive than this demonstration of an orderly control exercised over what seems to be a disorderly tangle of dividing cells apparently growing at cross purposes. Something inherent in the entire mass, something residing in its fundamental genetic constitution, keeps it marching steadily forward to a precise culmination. Form is characteristic of living things because it is the visible expression of this orderly organic control, this deep, goal-seeking directiveness.

Slime molds are almost the simplest of living things. Their bodies are naked masses of protoplasm not unlike the body of the familiar amoeba of the biological laboratory.

Most slime molds consist of a single mass of protoplasm, containing many nuclei but not divided into separate cells. They live on decaying logs and in similar situations, and sometimes reach considerable size, though they never become conspicuous. One small group, however, so insignificant as to be without a "common" name and to be designated only by its technical family name of *Acrasiaceae*, differs from typical slime molds in a number of ways. The individual here is not a substantial mass of protoplasm but a tiny cell so small that it cannot be seen without a rather high magnification by the microscope. It has no wall, and creeps about in its damp environment much like a miniature amoeba (indeed, it is called a *myxamoeba*) seeking the still smaller bacteria that are its food. It multiplies by the simple process of dividing itself in two, and is limited in numbers only by the amount of food available.

After a time a change comes over the swarming mass of these tiny separate cellular individuals and the cells begin to move toward a center.

When a great number of them—from ten thousand to fifty thousand individuals, usually—have thus come together, migration finally ceases. Each of the thousands of cells milling about in this seething mass keeps its identity and does not fuse with any of the others. Here, one might confidently say, is an undisciplined, swarming mob of independent cells. But such is not the case. In this little cellular republic in which, so far as we can see, every citizen is like every other one, remarkable events now begin to take place. Discipline is established. The mass pulls itself together into a lumpish, elongate structure (technically called a *pseudoplasmodium*), about two millimeters long and about the size of a birdseed. By a kind of gliding motion, still not well understood, this mass now slowly moves toward a lighter, dryer spot more favorable for spore production. It looks somewhat like an undulating, chubby worm, its forward tip lifted a little above the surface on which it moves.

The two ends of the axis of this cellular society are quite different, and only the "head" end has this organizing power. The other end follows, but never leads. This little swarm of gliding individuals is thus not a mob but a cellular state and shows the beginnings of that organized diversity which in higher plants and animals makes an organism.

But the most remarkable behavior is yet to come. This migrating plasmodium finally stops moving and settles down into a roundish mass something like a small biscuit. The individual cells on the lowest tier, which are touching the surface over which they have been moving, now anchor themselves firmly to it and form a little disk, strong enough to hold the structure that is to be built. Meanwhile, the cells along the vertical axis of the mass become thick-walled and stick together, forming a solid stalk. This grows at its upper end by the continual dedication of more cells to its formation. The great body of individuals, still free and uncommitted, glide over one another and somehow clamber up this stalk as it grows until they finally form a spherical mass at its tip. The whole now

looks a bit like a small, round-headed pin. Each cell in this mass rounds up to form a dark spore, and these thousands of spores dry out and are blown away, each to produce a new amoeba-like individual.

The potentialities for building this structure must in some way be inherent in each cell, though what the mechanism is by which it operates we have not yet the faintest idea.

"Directiveness" of Growth

MANY EVENTS in the life histories of animals have excited men's wonder through the centuries—how from an egg a fledgling is hatched out, how birds and fish can migrate so unerringly across the wastes of air and sea, how bees and ants maintain complex societies—but none, perhaps, has so stirred our imagination as has the amazing way in which a humble, crawling, earth-bound caterpillar, after its chrysalis sleep, becomes transformed into a moth.

The egg of a silkworm hatches into a small grub, and this in turn grows to be a voracious caterpillar, consuming many times its weight in mulberry leaves. When its full size—about three inches long—is reached, the caterpillar ends its feast, and a change comes over its behavior. It raises its head and begins to sway gently back and forth. Soon from a spinneret in its lower lip emerges a tiny silken strand which the caterpillar fastens to a twig or other firm support. Weaving around and around for several days in wide figure eights, it slowly constructs a mantle about itself, a thousand yards or more of precious silk, until it is tightly bound within a white cocoon.

Then all is quiet, and the caterpillar seems to have fallen asleep, wrapped in a silken shroud. Sleep of a sort this might perhaps be called, but within its body the little animal now begins a transformation of the most fantastic sort, for many of its organs and tissues are scrapped and discarded, and from their substance an entirely different set of structures—the organs of the winged moth—is now developed. It is as though this organism were two different animals.

This is no process of decay such as would happen if the body died and decomposed. And yet something not unlike this actually

does occur. In the bloodstream of the caterpillar, as in our own bloodstreams, there is a host of phagocytes, a special type of white blood corpuscle whose function it is to act as scavengers by absorbing foreign material and especially by devouring harmful bacteria, thus preventing serious infection. To such efficient police work many organisms owe their relative freedom from bacterial attack. Within the quiescent caterpillar, however, these phagocytes perform a very different task, for they now turn upon the body they have been protecting and devour and disintegrate many of its tissues. The muscles, the intestinal tract, the large salivary glands, and the skin itself are thus destroyed. Other parts break down by enzyme action. In the end, almost all of the original internal structures of the caterpillar, save for a part of the heart and nervous system, have disappeared.

This is no sudden onslaught but a gradual process, and it is accompanied from the start by the growth of new organs. Now appears a strange sort of embryology. Even in the body of the caterpillar there are present here and there tiny disk-like islands of embryonic tissue, the so-called "imaginal disks," which simply bide their time until the hour arrives for them to take their parts in the drama of regeneration. Some are in the head, others in the tissues under the skin, and still others in the walls of the intestine. They are immune to phagocyte attack, and as soon as the degeneration of the old structures begins they develop into active centers of growth from which the new structures are gradually formed. The process of transformation is an orderly one; the second set of organs, step by step, replaces the first. A new set of mouth parts, suitable for the very different kind of food the moth will eat, is formed. Two pairs of wings develop, beautifully folded together and packed into the narrow space inside the cocoon, ready to expand when the moth emerges, and to carry it in its new environment. Sexual organs are developed, for the chief function of this stage in the animal's life is to produce male and female sex cells through the union of which a new generation of grubs and caterpillars will come.

After several weeks the growth of the new structures is complete, and the cocoon is filled with quite a different animal from the

one that made it—a white moth. This second edition of the organism is radically different from the first. It is made from the same material, for practically nothing has entered or left the cocoon since it was formed; but the entire bodily architecture has been altered.

Most of us have gathered in the spring the eggs of frogs or toads. Their egg masses are handfuls of gray jelly deposited by the female in a quiet pond or pool. Scattered through the jelly are small dark dots about the size of birdshot—the eggs themselves. They have been fertilized and are already beginning to develop. Since they are relatively large and not encased in hard shells, they provide favorite objects of study for young embryologists.

In the deceptively simple-looking substance of these eggs there is a highly organized living system, which in some way prefigures the various steps in embryonic history: first the tadpole, and finally, gills and tail sloughed off, the adult toad or frog. Development moves indomitably on as if to a final goal.

Such, with no very radical differences, is the embryonic history of all vertebrates. In the lower groups of animals and in plants there are simpler developmental programs, but they are no less definitely directed toward the final production of an organism of a very precise kind. How to explain this sure-footed embryonic march from egg to adult is the question that makes the science of embryology so difficult —and so fascinating.

It is this *directiveness* that is the most distinctive feature of a living thing. Protoplasm does not make formless structures; it builds *organisms.* In this fact there resides, I think, a clue for the reconciliation of the two parts of man's dual nature.

Protoplasm and Purpose

AN ORGANISM, as it develops from an egg or seed, so regulates its growth that it moves steadily on to the production of a mature individual of a very definite kind. A similar directiveness and self-regulation is evident in behavior, and thus in mental traits. The suggestion is offered that this tendency toward goal-seeking, manifest in the activities of both body and mind, is a basic characteristic of *all* life, and that life is thus inherently goal-directed and purposeful.

As the traits of a mature individual are immanent in the egg from which it will develop, so a purpose, yet to be realized, may be said to be immanent in the cells of the brain. Mental activity is far more varied and complex than bodily development, but both are rooted in the self-regulating and goal-seeking nature of protoplasm.

The goal in embryonic life may be regarded as the series of stages that lead to a mature and properly functioning individual; and the goal in psychic life as a purpose or series of purposes, simple and unconscious in primitive instinct, but rising in the mind of man to far higher levels. Mental activity is the most complex form and culmination of that universal regulatory behavior in life which we have been discussing. All ideas, all types of mental life, seem to have been purposes at first.

From the synthesis of a new substance by an organism, or the origin of a new species, to supreme creations in the imagination of an artist or a poet, we are dealing with the same restless, changeful, trail-blazing quality of life that is found at all its levels. This creativeness, common to both the physical and the behavioral aspects of living stuff, is further evidence, it seems to me, that the highest expressions of both—the body and the mind of man—grow from a fundamental unity.

Such a concept is contrary to the accepted ideas of the modern science of psychology. It suggests that the behavior of an organism results from its being drawn toward something, desiring something, whereas orthodox psychology, grounded in physiology and the physical sciences, is obliged to think of behavior as the result of a push or drive. Such drives of many sorts are recognized and are being widely studied—hunger, sex, fear, ambition, and many more. We are so mechanically minded that the concept of drive seems more natural to us. Actually, the idea of being drawn provides a more accurate picture of our motives *as we experience them.* The hunger drive is simply a strong desire for food, which makes us seek it actively. We do not seem to be pushed toward food, compelled to seek it, but try eagerly to reach it by our own efforts. The drive for success or power means that we want these things very much. We recognize no compulsion to do so. The results, of course, are much the same in either

case, but the interpretation that we choose has important consequences for our philosophy. The essential question is, whether our behavior is due to something outside us, a stimulus that sets off a drive reaction in our protoplasmic mechanism, or to something that has its origin inside, something spontaneous and at least in part independent of external control. The psychologist will doubtless be loath to surrender his concept of drive, but it is important to remind him, I think, that a motive may be looked at from the front, so to speak, as well as from the rear. The concepts of "drive" and "draw" are both in harmony with physiological orthodoxy if we regard goal-seeking as mechanical regulation; but the latter has the advantage that it provides an interpretation of behavior that explains certain facts, notably the data from our inner feelings, that the former must ignore.

If this conception is sound, a study of developmental processes in the laboratory may throw light on the nature of mental processes and bring biology and psychology—and thus body and mind—more closely together.

Of Men and Motives

THE ESSENCE of our thesis is that man is not only a rational being but fundamentally a seeking, desiring, aspiring one. From this comes the force that moves and guides him. *What* he seeks is widely various. It depends in part on his inborn predispositions but also, in no small measure, on the environment and training to which he is exposed. This possibility that his goals may be elevated and the power of his aspiring nature harnessed to good ends is what gives hope of making our social order a far better one than it now is.

Man does have motive power that is his own. He is not simply at the mercy of external agencies, strong and compelling as these obviously are. Something inside him helps direct his course.

Motives are subtle qualities and often hard to analyze. Their origin, I think, is in goals and purposes, consciously felt or operating in the deeper regions of the unconscious mind. Men differ most profoundly in what they want and in the strength with which they want it. The fascination of biography is not primarily in the story

of a career or in the way a man is tossed about by fate and circumstance. What interests us most is the immanence in him of some goal eagerly sought, and the persistence with which he overcomes the obstacles to its attainment. What we most wish to know about him is not what he did but what he *wanted* to do, the inner urgencies at work within him.

Great men of every sort impress us not so much by their innate ability as by their dedication to a supreme ambition, be it good or ill. This is the stuff of character. Human history has been molded by the aspirations of that minority of individuals who had the capacity to *want* something very much.

The powerful forces of society tend to make men uniform, to standardize them as we do bolts and tires and cartridges. But the inner man bursts through all these restraints and blossoms in an endless variety of thoughts and deeds. Why is he drawn toward some things and repelled by others? What powers him? What steers him? In short, what is the basis for his *motives?*

The psychology of today is ready with at least a tentative answer. Having satisfactorily disposed of the old ideas about the "mind" and the "will," it has now begun a new exploration of man's actions and a new interpretation of his motives. The modern science of behavior is rooted in physiology and orthodox mechanistic theory. It assumes that man's body, like that of every other living thing, is a physico-chemical machine, no different in essence from any lifeless mechanism. What relation body has to mind is still a complex and confusing problem, to be sure, but psychology assumes that the material body is the essential member of the pair, and that in some way mind depends upon it. If the events of bodily physiology are rigidly determined, as all other physical and chemical events now seem to be, and if mental events depend upon them, then surely all motives are at botton physiological too—aspects of the activity of the living organism, just as are respiration, digestion, and other processes of metabolism.

These assumptions about mind and motivation are natural ones for psychology to make today and have justified themselves by leading to important discoveries in this field. The relationship, for example,

between specific regions of the brain and various mental faculties has repeatedly been shown. Alcohol and drugs of many sorts profoundly change men's mental attitudes and alter the direction and intensity of their desires. The glands of internal secretion are equally effective. Adrenalin, poured into the bloodstream in moments of anger, arouses an individual's belligerent potential. Prolactin, secreted by the mammary glands, will induce the attitude and behavior of mother love in female animals that have no young of their own, or sometimes even in males! Such instances could be multiplied many times.

For a psychology thus based on biology the term "motive" is an appropriate one. Motive is to be thought of simply as the power that moves an individual with a certain force. Psychology now interprets all motives as drives, rooted in man's living protoplasmic system and thus based finally on physiological necessity. Through the continued action of natural selection the behavior that results from such drives will tend to insure the survival of the individual.

It is here, however, that the modern science of the mind leaves many with an uncomfortable sense of insufficiency, a feeling that something important has been overlooked, a vital part of man left out of the picture because it somehow does not fit into a theory. The common attitude of men is forward-looking, purposeful. Goal-seekers all men are. What gives to life its meaning and its flavor is the pursuit of something much desired. To deny this is to violate a deeply seated conviction. Whatever the psychologist may say, we do not *feel* as if we were impelled by forces from behind or driven to a destination. Far more commonly we feel ourselves rather pulled or drawn *toward* something yet unrealized, a purpose, goal, or aspiration, something to be achieved in the uncertain future. Our motivation seems to be the tug exerted by these goals of our desire, not the push of physical necessity.

Common experience looks on the idea that we are pushed about by such inner drives as unreal and artificial. What meaning can it have, we say, for men whose lives are dedicated to the pursuit of knowledge or the creation of beauty or the service of their fellows? What place in it is there for devotion and sacrifice and that endless striving for truth and human betterment which ever has distinguished

man at his best? How can it satisfy all those who have burning in their hearts the flame of divine discontent that lifts men higher than the beasts? Men seem not to be pushed into the finest things they do but to follow the urgent call of something that draws them on through hardship and uncertainty and discouragement to the attainment of a high desire.

Psychology's Dilemma

PSYCHOLOGY IS BOUND to feel somewhat embarrassed over this dilemma between science and common sense.

The conception of the relation between body and mind presented in these pages has the advantage of avoiding the dilemma, simply assuming that purpose and desire are the inner experience of that tendency toward self-regulation and goal-seeking that distinguishes all organic activity, bodily or mental. The tension, the pull, of this regulation is *felt* and need not be explained away as fiction or illusion.

This conception has the advantage over present psychological orthodoxy in that its attitude is forward, *toward* a goal to be reached, and not back to the push and drive of circumstance, and is thus in harmony with the common verdict of experience.

What difference does it make in accounting for human motives whether we choose the alternative of drive or of draw, of a compulsion with its roots in physiology or of a protoplasmic purpose growing from self-regulation? There is a very real difference here. If we accept desires, goals, purposes, and intentions as real and effective, as part of the data of the universe, though yet we do not understand their origin, we can develop better methods, I believe, for guiding man's behavior than we can if we think of him as driven along his course—better because they are in closer harmony with his real nature. For all who are seeking to improve society it thus becomes a task of major consequence to find how these elusive qualities may be called forth and how they may so be elevated as to draw men upward in achieving them. Whatever theory of motivation one adopts, this task deserves more emphasis than it has received, and for those who look on goals as primary factors in behavior, it is paramount.

Unless behavior conforms to certain general moral patterns, men cannot live successfully together. To make it so conform, and thus to preserve society from disintegration, dependence in the past has been on two chief means—the law, and the rational persuasions of education and the intellect. Men have been forced to do right and taught what is right to do. Neither means has proven a complete success, nor ever will, I fear, unless their service is supplemented by an elevation of men's motives. Fear of hell or the hangman has doubtless kept many a distracted soul from crime, but it will take much more than fear of these to build the good society. Virtue must grow inwardly. To impose it from without may gain temporary success but almost always ends in final failure.

For those who seek to turn men's paths to virtue, the second method, education, seems to be more promising. But education only digs the channel, so to speak, along which the river of life may flow. Too often it shoves and pushes a reluctant pupil on, instead of setting before him a goal so attractive and compelling that he moves forward toward it by his own efforts.

It is here that the interpretation of behavior as rooted in the purposiveness of all life may prove of service. To make people want to do what they ought to do is a very important but often neglected problem. To accomplish this, attention to a proposed goal must first be gained. This may awaken interest in it. Through the contagion of ideas from books and other sources, interest leads to the growth of new desires. The role of contagious personalities in teachers and moral leaders is also of great importance.

A recognition of the essential part played by goals in human behavior therefore not only makes possible a clearer understanding of man's nature but may lead to more effective means of determining his motives and thus of guiding his conduct.

The Philosophy of Goals

IT SEEMS PROBABLE that radically new ways of looking at nature may have to be opened, ways that are so different from the familiar ones science long has trod that many will refuse to recognize them. What are we to say, for example, to the abundant evidence that

telepathy is a fact and that other fields of what is called parapsychology deal with real phenomena and not imaginary ones? These ideas so completely violate accepted canons that few psychologists are willing even to consider the possibility that they may be true. No mechanism has yet been found by which such phenomena may be analyzed or explained in familiar terms. Radically different views as to the nature of space and time may have to be developed to deal with phenomena like these, and the theory of relativity has made a beginning at this difficult task. Scientists brought up in the older modes of thinking will hardly blaze fresh trails here, and the establishment of new ideas may have to await the passing of their opponents from the scene.

Try as he will, the biologist is bound to confront metaphysical problems, as the physicist is already doing. He now is likely to throw up his hands and cry that such ideas are outside the boundaries of science and thus are no concern of his; but unless we define science very narrowly it will have sufficient latitude to take in frontier problems such as these. It surely behooves the biologist to think far enough into these difficult matters so that he can reach an intelligent understanding of what the problems are. The physicist is devoting much attention to such questions as the nature of physical reality, the mathematician to the relations of space and time, and the cosmogonist to the origin and destiny of the universe. In such explorations as these the biologist is bound sooner or later to have an important share. His material is so much more complex than that with which the physical scientists work that he will necessarily lag somewhat behind them, but in the end he will have much to say about philosophical problems. Indeed, it may be that the biologist, dealing as he does with far more complex phenomena of physics and chemistry than do physical scientists, will in the end be able to demonstrate qualities in matter and energy that could never be discovered except by studying them in their living state.

By its technique of analysis science has learned much about the material world and has broken it down into smaller and smaller particles. It finds that the continual shuffling of these particles tends toward disorganization and the "running down" of the universe. The presence of definite forms, however, as of atoms, crystals, and or-

ganisms, shows that there are also synthetic factors operating in nature. For science to deal with these is much more difficult. Self-regulation and purposiveness in a living organism pose such a problem of synthesis at the highest and most creative level, that of life.

What gives life this creative power is that its goals are not immutable, as the pattern of a crystal is, but are changing constantly. During the long course of evolution they altered, slowly but steadily, until new types of plants and animals came into being, adapted to every nook and corner of the earth. With the development of a nervous system came the elevation of mere bodily goals to the far more varied ones of instinct and behavior; and on man's appearance, with his capacities for memory, imagination, and rational thought, the simple goal-seeking of life at its lower levels was transformed to conscious purpose and the high aspirations of his mental and spiritual life.

All this, it seems to me, makes it essential to recognize the existence of these goals of life in any system of philosophy that we may frame. Knowledge of them is essential for an understanding of life at every level, from protozoan to poet.

Goal-seeking and directiveness in organisms should be recognized as a basic fact and life's most characteristic quality, for only in life is the source of goal-seeking and purpose. What life's place is in the universe we have not yet discovered. It may be that which makes for order and organization in the midst of chaos. It may be the manifestation of Universal Mind operating in nature. It may be an expression of the highest possibilities latent in matter and emerging from it. In this momentous question as to the nature and quality of life we should not limit ourselves to an approach through science only, important as this is. The philosopher, the poet, the artist, and the mystic should all contribute of their insights here, for all are concerned with life. The constellation of man's deepest problems centers in biology, but in a biology broadened and illuminated by contact with our widest horizons.

Man's Goal-Seeking Quality

The unifying concept of man that has been presented here interprets mind and body as two aspects of the organizing, self-regulating

purposiveness all living stuff displays. Around this central biological fact the great problems of philosophy, I believe, will more and more revolve. To accept the idea of man's whole nature as rooted in protoplasmic goal-seeking is to take a long step forward toward an understanding of what he is, though it is still far from "explaining" him.

Man's deepest satisfactions, his cravings for beauty, his moral aspirations, his love for his fellows, and his reverence for something greater than himself in the universe outside are the highest expressions, I believe, of that goal-seeking quality that begins with the formative processes in every living cell. Hence come the warmth and color of life's fabric, its richness, fullness, and diversity. Reason indeed is a powerful tool, and we do well to use it to the uttermost. The possibilities for its triumphs in the future are incalculable. But the goal of our race is not mere intellectual achievement, as some would have us think. By no discipline, however austere, can we escape the influence of those inner promptings that rise up from the living core. An existence that was rational only would be drab indeed, the plodding of a robot calculator to its uneventful end. The zest, the fire, the savor of existence comes from something deeper, something spontaneous, native, and protoplasmic, which we can never outgrow or avoid, nor should we wish to do so. These deep-seated inborn urgencies and desires, arising spontaneously in the mind but subject to a wide measure of direction, often dragging man down to the level of the beasts but coming to flower as the highest expression of what he is and what he might become, one may rightly call, I think, the human spirit.

The biological goals in protoplasm merge imperceptibly from bodily regulation through instinct and feeling into those aspirations that mark man at his highest. They make him a different sort of creature from a merely intellectual animal—a desiring, questing, creative being. He stands on the frontier between material and spiritual things. His spirit so transcends all else in him that it intrigues us with the hope that perhaps it even may partake of an infinite Spirit suffusing the universe itself. It reaches down into the depths of life and makes there, many are convinced, a *direct* contact with reality that seems to tell us more about our own nature and our relation to the universe than intellect alone can ever do. From it pour up into consciousness a throng

of emotions and desires that are the most significant part of our experience and persuade us, mysterious though they are, that underneath the physical senses and the reasoned processes of mind there is a region full of richness, meaning, and truth but accessible only by this pathway of the spirit. Whatever name psychology may give it, and however we may try to account for what it does, we should not let a naíve materialism persuade us to neglect as useless or unreliable this spiritual avenue to reality.

If we are willing to accept this idea that man's spirit is the highest expression of what began as the formative, self-regulating quality found in all living stuff, we shall discover that it leads to the center of some of the great problems of aesthetics and religion—values, beauty, morality, the soul, and the idea of God.

What is man's future? No one, indeed, can tell. "It doth not yet appear what we shall be." But that the future *may* be something finer than our dreams we cannot doubt—finer not in material and intellectual progress only but in spiritual understanding. The lesson to be learned from the biology of man's spirit is that what will decide his destiny are the goals of his desire. Hope for him depends on their being raised so high that he will lift himself upward in achieving them. He cannot be driven. He cannot be coerced. But he can be *led* by the drawing power of his desires. If what he wants is what the beasts want whence he came, he will go downward to their level. If higher goals can be implanted in his heart, he will climb upward to achieve them through tribulation and disaster. If he seeks to realize the loftiest ones of all, the aspirations of his spirit, though he cannot fully understand them now but only feels their urgency and power, his spirit will grow into completer harmony with the Universal Spirit and he may truly prove himself a child of God.

Thus our hypothesis, based on a study of the development of simple animals and plants, can help illuminate some of the deepest of man's problems by relating them to the goal-seeking quality that life invariably displays. They are all concerned with life and thus are finally problems of biology, but of biology in its widest and most inclusive sense, the biology of the spirit.

COMING IN TOMORROW:

THE PSYCHIC WORLD OF C. J. JUNG

By Aniela Jaffe

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 STAT. 208) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF TOMORROW published quarterly at New York, N. Y. for October 1, 1960 1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Garrett Publications, 29 West 57th Street, New York 19, N. Y., Editor, Eileen J. Garrett, 29 West 57th Street, New York 19, N. Y., Managing Editor, Martin Ebon, 29 West 57th Street, New York 19, N. Y., Business Manager, Lester E. Buckland, 29 West 57th Street, New York 19, N. Y. 2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.) Eileen J. Garrett, 29 West 57th Street, New York 19, N. Y., Hon. Frances P. Bolton, 1800 Richmond Road, Cleveland, Ohio. 3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None. 4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner. 5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required by the act of June 11, 1960 to be included in all statements regardless of frequency of issue.) 5,000. Lester E. Buckland, Business Manager. Sworn to and subscribed before me this 27th day of September, 1960, Anthony J. Bechlof, Notary Public State of New York. No. 41-5231375. Certificate Filed in New York County. Qualified in Queens County. Commission expires March 30, 1962.

(*Continued from inside front cover*)

Devoe, well-known for his articles in *The Reader's Digest,* who remained forever bemused by the knowledge and behavior of animals that suggested some form of extra-sensory perception.

THESE ELEMENTS in the history of TOMORROW are being recalled at this moment, when we shall soon be entering the third decade of its publication. With the turn of the year, this magazine will begin to be published by the Parapsychology Foundation, Inc., of which I am President; until now, TOMORROW's publishers have been Garrett Publications. This change will put within the framework of the Parapsychology Foundation three periodicals dealing with similar subject matter, but quite distinct in their editorial aims: TOMORROW will continue to appeal to the intelligent layman; the quarterly *International Journal of Parapsychology* addresses itself to the scholar; and the bimonthly *Newsletter* of the Parapsychology Foundation has the task to report news events and timely papers with clarity and speed.

TOMORROW, since it became a quarterly magazine dealing largely with psychical research in 1952, has developed a distinct editorial personality. It has been, and will remain, a wide forum for a variety of facts and ideas, of case material and criticism. TOMORROW has been, and will remain, very much a child of this century—editorially always on the forefront of developments, but at all times conscious of the achievements of the past.

I should like to use this occasion to wish our reader-friends a Merry Christmas and a Happy New Year.

EILEEN J. GARRETT

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